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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 MAR 15 WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 3 MAR 16 CASREACT coverage extended
NEWS 4 MAR 20 MARPAT now updated daily
NEWS 5 MAR 22 LWPI reloaded
NEWS 6 MAR 30 RDISCLOSURE reloaded with enhancements
NEWS 7 APR 02 JICST-EPLUS removed from database clusters and STN
NEWS 8 APR 30 GENBANK reloaded and enhanced with Genome Project ID field
NEWS 9 APR 30 CHEMCATS enhanced with 1.2 million new records
NEWS 10 APR 30 CA/CAPplus enhanced with 1870-1889 U.S. patent records
NEWS 11 APR 30 INPADOC replaced by INPADOCDB on STN
NEWS 12 MAY 01 New CAS web site launched
NEWS 13 MAY 08 CA/CAPplus Indian patent publication number format defined
NEWS 14 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 15 MAY 21 BIOSIS reloaded and enhanced with archival data
NEWS 16 MAY 21 TOXCENTER enhanced with BIOSIS reload
NEWS 17 MAY 21 CA/CAPplus enhanced with additional kind codes for German patents
NEWS 18 MAY 22 CA/CAPplus enhanced with IPC reclassification in Japanese patents
NEWS 19 JUN 18 CA/CAPplus to be enhanced with pre-1967 CAS Registry Numbers
NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 07:41:53 ON 27 JUN 2007

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 07:42:03 ON 27 JUN 2007
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STRUCTURE FILE UPDATES: 26 JUN 2007 HIGHEST RN 939408-72-7
DICTIONARY FILE UPDATES: 26 JUN 2007 HIGHEST RN 939408-72-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

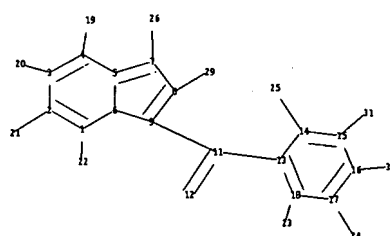
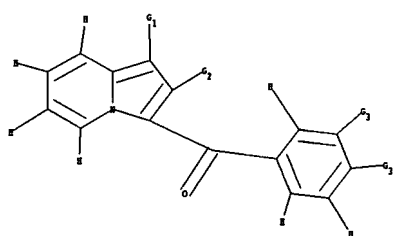
Please note that search-term pricing does apply when
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REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
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<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10509919a.str



```

chain nodes :
11 12 19 20 21 22 23 24 25 26 29 31 32
ring nodes :
1 2 3 4 5 6 7 8 9 13 14 15 16 17 18
chain bonds :
1-22 2-21 3-20 4-19 7-26 8-29 9-11 11-12 11-13 14-25 15-31 16-32 17-24
18-23
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 13-14 13-18 14-15 15-16 16-17
17-18
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 5-6 6-9 7-26 8-29 11-12 15-31 16-32
exact bonds :
1-22 2-21 3-20 4-19 5-7 7-8 8-9 9-11 11-13 14-25 17-24 18-23
normalized bonds :
13-14 13-18 14-15 15-16 16-17 17-18
isolated ring systems :
containing 1 : 13 :

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G1:C,O,N,OH

G2:C,H,O

G3:C,H,O,S,N

Match level :

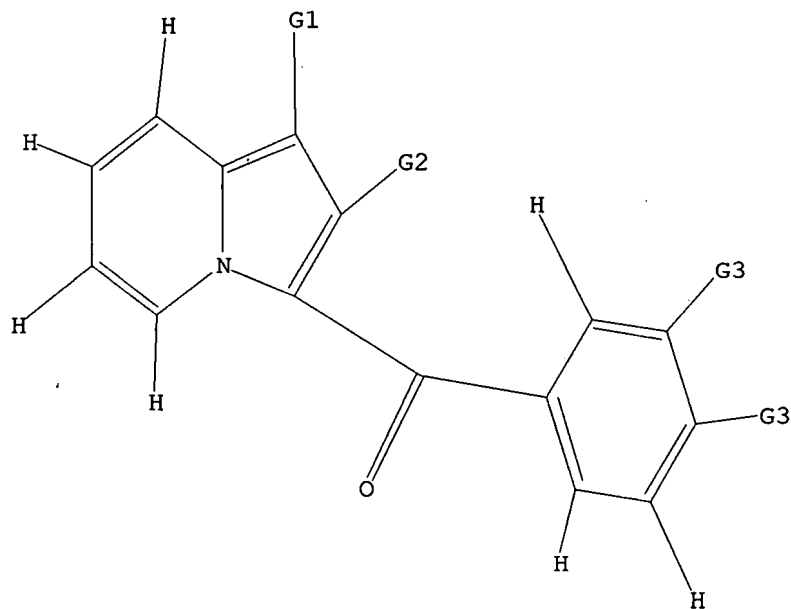
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 11:CLASS
12:CLASS 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS 20:CLASS
21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 29:CLASS 31:CLASS
32:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 C,O,N,OH

G2 C,H,O

G3 C,H,O,S,N

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 07:42:23 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 153 TO ITERATE

100.0% PROCESSED 153 ITERATIONS

14 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 2318 TO 3802

PROJECTED ANSWERS: 56 TO 504

L2 14 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 07:42:27 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 3202 TO ITERATE

100.0% PROCESSED 3202 ITERATIONS 279 ANSWERS
SEARCH TIME: 00.00.01

L3 279 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 172.10 172.31

FILE 'CAPLUS' ENTERED AT 07:42:32 ON 27 JUN 2007
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FILE COVERS 1907 - 27 Jun 2007 VOL 147 ISS 1
FILE LAST UPDATED: 26 Jun 2007 (20070626/ED)

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<http://www.cas.org/infopolicy.html>

=> s l3 full
L4 55 L3

=> d ibib abs hitstr 1-10

L4 ANSWER 1 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1135210 CAPLUS
DOCUMENT NUMBER: 146:45461
TITLE: Reaction of hexachloroacetone with activated acetylenes in the presence of N-heterocycles. Synthesis of trichloromethylated bridgehead N-heterocycles
AUTHOR(S): Yavari, Issa; Sabbaghan, Maryam; Hossaini, Zinatossadat
CORPORATE SOURCE: Chemistry Department, Tarbiat Modarres University, Tehran, Iran
SOURCE: Synlett (2006); (15), 2501-2503
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 146:45461
AB Pyridine reacts smoothly with hexachloroacetone (HCA) in the presence of dialkyl acetylenedicarboxylates or dibenzoylacetylene to produce

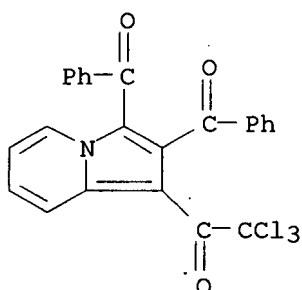
indolizines. Under similar conditions, isoquinoline led to oxazino[2,3-a]isoquinolines and/or pyrrolo[2,1-a]isoquinolines. 3,3-Bis(trichloromethyl)-3H,4aH-[1,3]oxazino[2,3-a]quinoline-1,2-dicarboxylate or 1-methyl-7-(2,2,2-trichloroacetyl)-1H-pyrrolo[1,2-a]imidazole-5,6-dicarboxylate was obtained from the reaction of quinoline or N-methylimidazole with acetylenedicarboxylate in the presence of HCA.

IT 916486-34-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of bicyclic nitrogen hetarenes by reaction of perchloroacetone with activated acetylenes in presence of heterocycles)

RN 916486-34-5 CAPLUS

CN Ethanone, 2,2,2-trichloro-1-(2,3-dibenzoyl-1-indoliziny)- (CA INDEX NAME)



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:430765 CAPLUS

DOCUMENT NUMBER: 145:124452

TITLE: Preparation of indolizine-1-carboxylic acid derivatives from pyridine ylide and electron deficient olefin

INVENTOR(S): Wang, Bingxiang; Xu, Zhuxiong; Yuan, Sheng; Dai, Yijun; Shen, Jian

PATENT ASSIGNEE(S): Nanjing Normal University, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1763039	A	20060426	CN 2005-10094358	20050915
PRIORITY APPLN. INFO.:			CN 2005-10094358	20050915

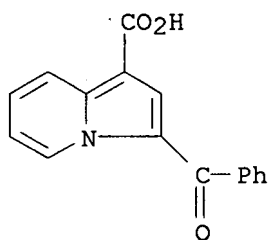
AB Indolizine-1-carboxylic acid derivs. are prepared by carrying out 1,3-dipole cycloaddn. of pyridine Ylide and electron deficient olefin (e.g. acrylate, acrylonitrile, or acrylamide) in solvent (e.g. benzene, toluene, dimethylbenzene, etc.) in the presence of oxidant (air, oxygen, or Cr (VI) compound, etc.) to obtain an indolizine derivative followed by hydrolysis.

IT 25627-87-6P

RL: IMF (Industrial manufacture); PREP (Preparation)
(Preparation of indolizine-1-carboxylic acid derivs. from pyridine ylide and electron deficient olefin)

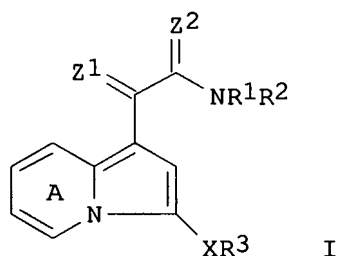
RN 25627-87-6 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:1154430 CAPLUS
 DOCUMENT NUMBER: 143:416211
 TITLE: 1-Glyoxylamide indolizines for treating lung and ovarian cancer
 INVENTOR(S): Li, Hao; Koya, Keizo; Sun, Lijun
 PATENT ASSIGNEE(S): Syntha Pharmaceuticals, Corp., USA
 SOURCE: PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005099824	A1	20051027	WO 2005-US9519	20050322
WO 2005099824	A8	20060413		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005272766	A1	20051208	US 2005-88253	20050323
PRIORITY APPLN. INFO.:			US 2004-557467P	P 20040330
OTHER SOURCE(S):	MARPAT 143:416211			
GI				



AB A method of treating a subject having lung cancer or ovarian cancer is disclosed, comprising administering to the subject an effective amount of a compound represented by Structural Formula (I) or a pharmaceutically acceptable salt, solvate, or polymorph thereof: Ring A is substituted or unsubstituted and optionally fused to an aryl group. Z1 and Z2 are

independently O, S, N-OR12 or NR12; R1 and R2 are independently -H, an aliphatic group, a substituted aliphatic group, an unsubstituted non-aromatic heterocyclic group, a substituted non-aromatic heterocyclic group, an aryl group or a substituted aryl group, provided that R1 and R2 are not both -H. Alternatively, -NR1R2, taken together, is a substituted or unsubstituted non-aromatic nitrogen-containing heterocyclic group or a substituted or unsubstituted nitrogen-containing heteroaryl group. R3 is a substituted or unsubstituted aryl group or a substituted or unsubstituted aliphatic group. X is a covalent bond, -C(R4R5)-, -N(R4)-, -O-, -S-, -S(O)-, -S(O)2-, -C(=O)-, -C(=O)-N(R4)-, or -N(R4)-C(=O)-. R4 and R5 are independently -H or a substituted or unsubstituted aliphatic group. R12 is -H or a substituted or unsubstituted alkyl group.

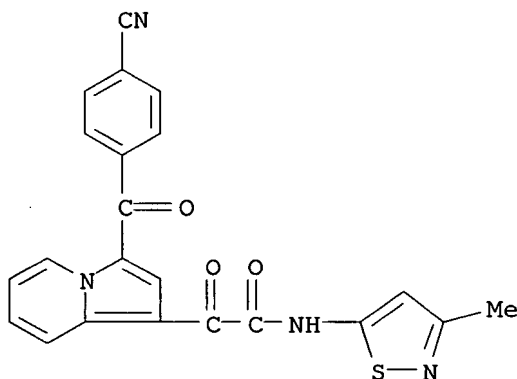
IT 501948-27-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(1-glyoxylamide indolizines for treating lung and ovarian cancer)

RN 501948-27-2 CAPLUS

CN 1-Indolizineacetamide, 3-(4-cyanobenzoyl)-N-(3-methyl-5-isothiazolyl)- α -oxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:731272 CAPLUS

DOCUMENT NUMBER: 143:206426

TITLE: Use of 1,2,3-substituted indolizine derivatives as FGF inhibitors for the preparation of drugs for the treatment of diseases connected with pathological choroidal angiogenesis

INVENTOR(S): Badorc, Alain; Bono, Françoise; Bordes, Marie Françoise; Foidart, Jean Michel; Guillo, Nathalie; Noel, Agnes; Rakic, Jean Marie

PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.

SOURCE: Fr. Demande, 25 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

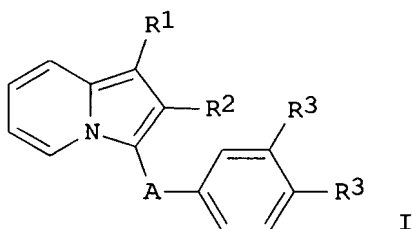
LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

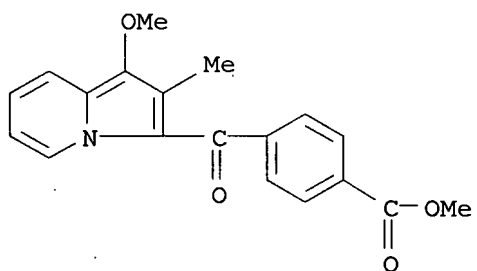
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2865934	A1	20050812	FR 2004-1094	20040205
FR 2865934	B1	20060505		
AU 2005216671	A1	20050909	AU 2005-216671	20050204
CA 2553895	A1	20050909	CA 2005-2553895	20050204

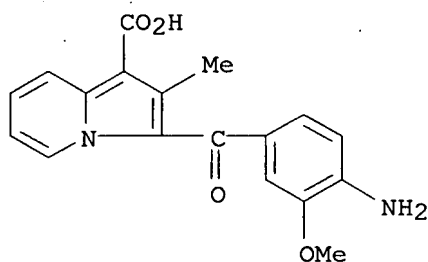
WO 2005082457 A2 20050909 WO 2005-FR253 20050204
 WO 2005082457 A3 20051110
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 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
 SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG
 EP 1713543 A2 20061025 EP 2005-717556 20050204
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,
 BA, HR, IS, YU
 CN 1917922 A 20070221 CN 2005-80004150 20050204
 IN 2006KN02105 A 20070518 IN 2006-KN2105 20060726
 PRIORITY APPLN. INFO.: FR 2004-1094 A 20040205
 WO 2005-FR253 W 20050204
 OTHER SOURCE(S): MARPAT 143:206426
 GI



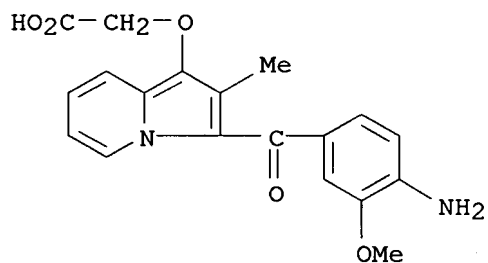
AB The invention discloses the use of 1,2,3-substituted indolizine derivs. I
 (R1 = OH, C1-5 alkoxy, carboxy, etc.; R2 = H, C1-5 alkyl, C3-6 cycloalkyl,
 etc.; A =CO, SO, SO2; R3, R4 = H, C1-5 alkoxy, amino, carboxy, etc.), or a
 pharmaceutically acceptable salt thereof, for the preparation of a medicament
 useful for the treatment of diseases related to pathol. choroidal
 angiogenesis.
 IT 610765-84-9 610766-65-9 610766-66-0
 610767-08-3 724700-78-1 727650-85-3
 736133-23-6 741669-12-5 778573-49-2
 848318-25-2 848463-13-8 862156-48-7
 862156-49-8 862156-50-1
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (indolizine derivative FGF inhibitors for treatment of diseases connected
 with pathol. choroidal angiogenesis)
 RN 610765-84-9 CAPLUS
 CN Benzoic acid, 4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-, methyl
 ester (9CI) (CA INDEX NAME)



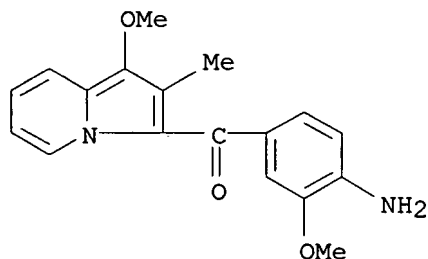
RN 610766-65-9 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-(4-amino-3-methoxybenzoyl)-2-methyl- (9CI)
 (CA INDEX NAME)



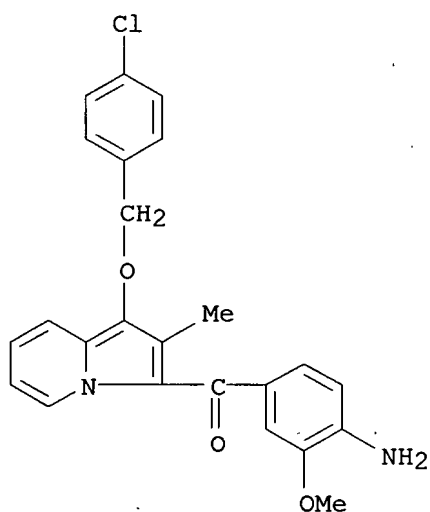
RN 610766-66-0 CAPLUS
 CN Acetic acid, [[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]-
 (9CI) (CA INDEX NAME)



RN 610767-08-3 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl) (1-methoxy-2-methyl-3-indolizinyloxy)-
 (9CI) (CA INDEX NAME)

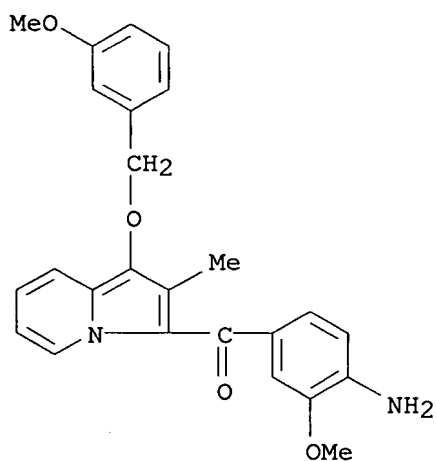


RN 724700-78-1 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl) [1-[(4-chlorophenyl)methoxy]-2-methyl-
 3-indolizinyloxy]- (9CI) (CA INDEX NAME)



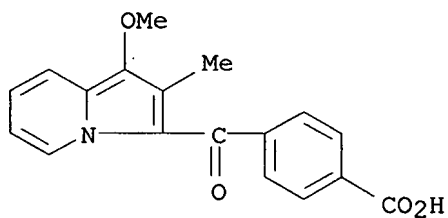
RN 727650-85-3 CAPLUS

CN Methanone, (4-amino-3-methoxyphenyl) [1-[(3-methoxyphenyl)methoxy]-2-methyl-3-indoliziny]- (9CI) (CA INDEX NAME)



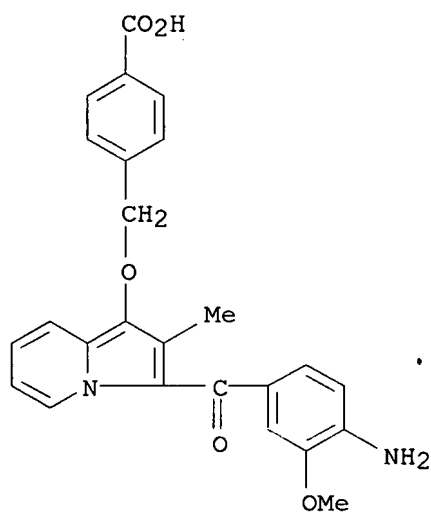
RN 736133-23-6 CAPLUS

CN Benzoic acid, 4-[[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]methyl]- (9CI) (CA INDEX NAME)

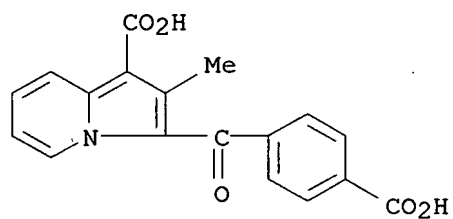


RN 741669-12-5 CAPLUS

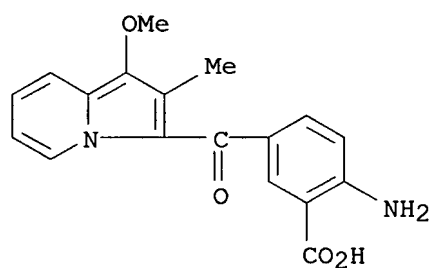
CN Benzoic acid, 4-[[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]methyl]- (9CI) (CA INDEX NAME)



RN 778573-49-2 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-(4-carboxybenzoyl)-2-methyl- (9CI) (CA INDEX NAME)

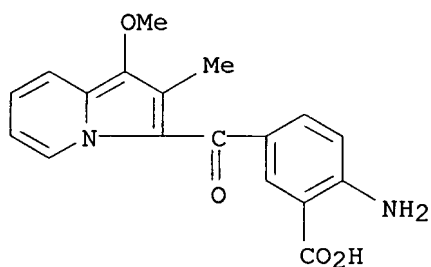


RN 848318-25-2 CAPLUS
 CN Benzoic acid, 2-amino-5-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-, monosodium salt (9CI) (CA INDEX NAME)



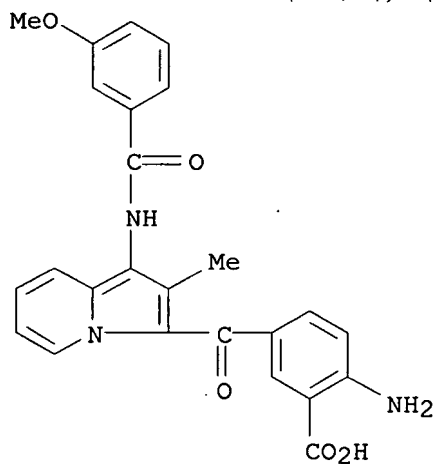
● Na

RN 848463-13-8 CAPLUS
 CN Benzoic acid, 2-amino-5-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]- (9CI) (CA INDEX NAME)



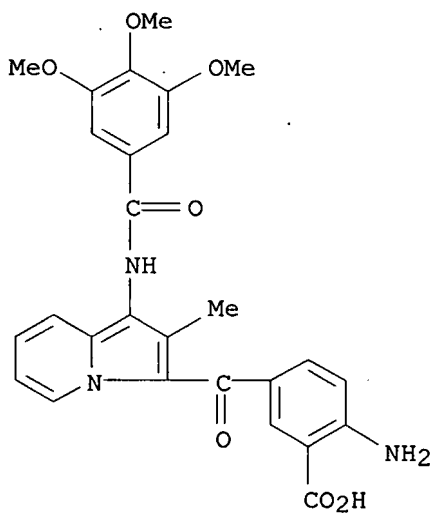
RN 862156-48-7 CAPLUS

CN Benzoic acid, 2-amino-5-[[1-[(3-methoxybenzoyl)amino]-2-methyl-3-indoliziny]carbonyl]- (9CI) (CA INDEX NAME)



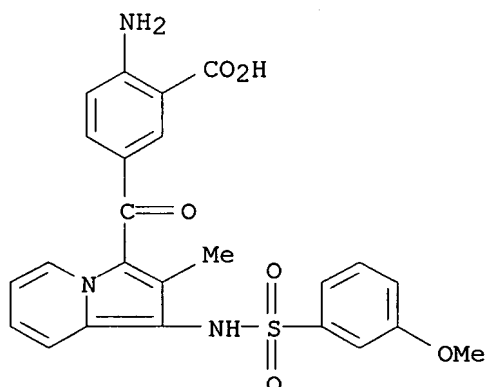
RN 862156-49-8 CAPLUS

CN Benzoic acid, 2-amino-5-[[2-methyl-1-[(3,4,5-trimethoxybenzoyl)amino]-3-indoliziny]carbonyl]- (9CI) (CA INDEX NAME)



RN 862156-50-1 CAPLUS

CN Benzoic acid, 2-amino-5-[[1-[(3-methoxyphenyl)sulfonyl]amino]-2-methyl-3-indoliziny]carbonyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:258661 CAPLUS

DOCUMENT NUMBER: 142:316694

TITLE: Preparation of 1,2,3-substituted indolizines as selective b-FGF antagonists and angiogenesis inhibitors for treatment of cancer and cardiovascular diseases

INVENTOR(S): * Badorc, Alain; Bono, Francoise; Bordes, Marie
Francoise; Guillo, Nathalie; Herbert, Jean Marc

PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.

SOURCE: Fr. Demande, 70 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

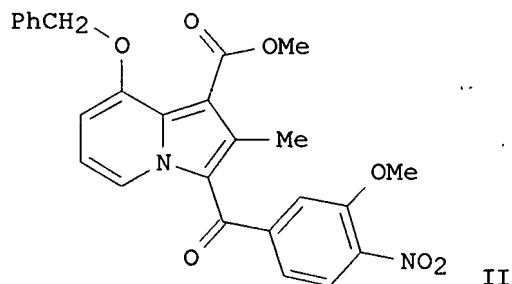
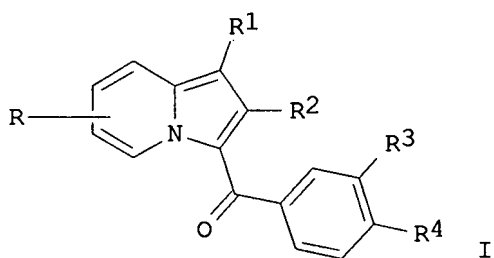
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

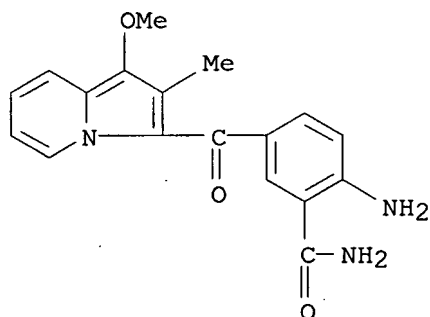
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2859997	A1	20050325	FR 2003-10957	20030918
FR 2859997	B1	20060203		
WO 2005028476	A1	20050331	WO 2004-FR2347	20040916
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1664047	A1	20060607	EP 2004-787388	20040916
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
JP 2007505867	T	20070315	JP 2006-526664	20040916
US 2006199962	A1	20060907	US 2006-378972	20060317
PRIORITY APPLN. INFO.:			FR 2003-10957	A 20030918
			WO 2004-FR2347	W 20040916

OTHER SOURCE(S): MARPAT 142:316694

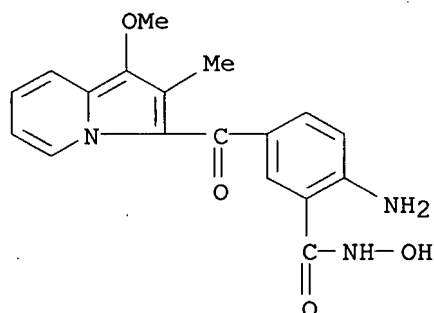
GI



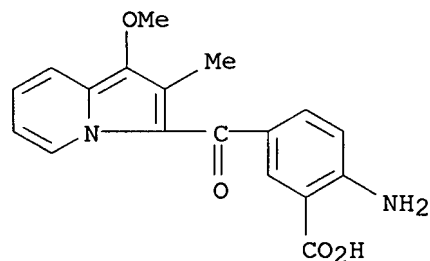
- AB Title compds. I [wherein R = H, halo, Me, OH and derivs., CO₂H, etc.; R₁ = alkoxy, CO₂H and derivs., (un)substituted Ph; R₂ = cyclo/alkyl, (un)substituted Ph; R₃, R₄ = independently OH and derivs., NH₂, CO₂H, alkoxycarbonyl, NO₂, etc.; and their pharmaceutically acceptable salts] were prepared as selective basic fibroblast growth factor (b-FGF) antagonists and angiogenesis inhibitors. For example, II (m.p. = 125°) was prepared by Chichibabin cyclization of Me 2-[5-(benzyloxy)pyridin-2-yl]acetate with chloroacetone followed by benzoylation with 3-methoxy-4-nitrobenzoyl chloride in DCE at room temperature for 60 h. I inhibited the growth of b-FGF-expressing tumor cell lines (HUVEC) with a specific activity in the range of 10⁻⁹ M to 10⁻⁵ M. I exhibited a specific activity in the range of 10⁻¹¹ M to 10⁻⁷ M in an angiogenesis test in vitro. I are active by oral administration of doses of 0.1 to 100 mg/kg. Thus, I are useful for treatment of cancer, certain cardiovascular diseases, diabetic retinopathy, chronic inflammations, hypo- and achondroplasia.
- IT 848318-07-0P, 2-Amino-5-[(1-methoxy-2-methylindolizin-3-yl)carbonyl]benzamide 848318-08-1P, 2-Amino-N-hydroxy-5-[(1-methoxy-2-methylindolizin-3-yl)carbonyl]benzamide
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (b-FGF inhibitor; preparation of indolizines as selective b-FGF inhibitors)
- RN 848318-07-0 CAPLUS
- CN Benzamide, 2-amino-5-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]- (9CI)
 (CA INDEX NAME)



RN 848318-08-1 CAPLUS
 CN Benzamide, 2-amino-N-hydroxy-5-[(1-methoxy-2-methyl-3-indolizinyl)carbonyl]- (9CI) (CA INDEX NAME)



IT 848318-25-2, Sodium 2-amino-5-[(1-methoxy-2-methylindolizin-3-yl)carbonyl]benzoate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of indolizines as selective b-FGF inhibitors)
 RN 848318-25-2 CAPLUS
 CN Benzoic acid, 2-amino-5-[(1-methoxy-2-methyl-3-indolizinyl)carbonyl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:534300 CAPLUS
 DOCUMENT NUMBER: 141:65094
 TITLE: Substituted 1-benzoyl-3-cyano-pyrrolo[1,2-a]quinolines

and analogs as activators of caspases and inducers of apoptosis

INVENTOR(S): Cai, Sui Xiong; Drewe, John A.; Jiang, Sungchun; Kasibhatla, Shailaja; Kuemmerle, Jared Daniel; Sirisoma, Nilantha Sudath; Zhang, Han-Zhong

PATENT ASSIGNEE(S): Cytovia, Inc., USA

SOURCE: PCT Int. Appl., 106 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004055163	A2	20040701	WO 2003-US39550	20031212
WO 2004055163	A3	20040826		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003300883	A1	20040709	AU 2003-300883	20031212
US 2005014759	A1	20050120	US 2003-733229	20031212
US 7135480	B2	20061114		
EP 1578424	A2	20050928	EP 2003-813401	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			US 2002-432608P	P 20021212
			WO 2003-US39550	W 20031212

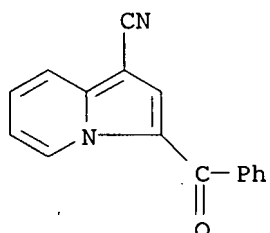
OTHER SOURCE(S): MARPAT 141:65094

AB The invention discloses substituted 1-benzoyl-3-cyanopyrrolo[1,2-a]quinolines and analogs thereof. Compds. of the invention are activators of caspases and inducers of apoptosis. Therefore, the compds. of the invention can be used to induce cell death in a variety of clin. conditions in which uncontrolled growth and spread of abnormal cells occurs. Compound prepn is described.

IT 25627-81-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(benzoylcyanopyrroloquinolines and analogs as activators of caspases and inducers of apoptosis)

RN 25627-81-0 CAPLUS

CN 1-Indolizinecarbonitrile, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:252511 CAPLUS

DOCUMENT NUMBER: 140:287263

TITLE: Synthesis of 3-acylindolizines via cyclization of 2-methyl-1-phenacylpyridinium halides with sterically hindered reagents, and their use as intermediates in the preparation of 1-glyoxylamide indolizines

INVENTOR(S): Sun, Lijun; Koya, Keizo; Xia, Zhi-qiang; Przewloka, Teresa; Zhang, Shijie; Ono, Mitsunori

PATENT ASSIGNEE(S): Synta Pharmaceuticals Corp., USA

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

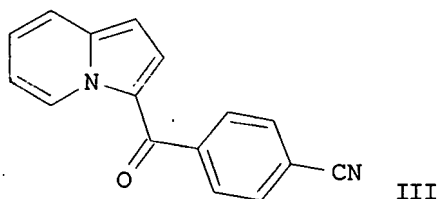
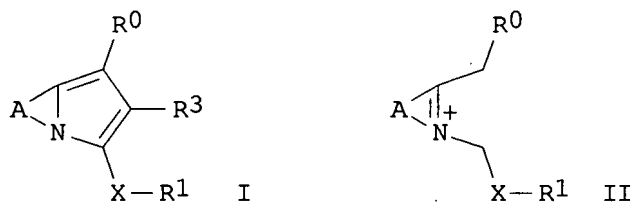
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004024727	A2	20040325	WO 2003-US28252	20030910
WO 2004024727	A3	20040603		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2496764	A1	20040325	CA 2003-2496764	20030910
AU 2003267071	A1	20040430	AU 2003-267071	20030910
EP 1537105	A2	20050608	EP 2003-749545	20030910
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1681813	A	20051012	CN 2003-821740	20030910
JP 2006504692	T	20060209	JP 2004-536391	20030910
US 2004152897	A1	20040805	US 2003-660358	20030911
NO 2005001009	A	20050404	NO 2005-1009	20050224
PRIORITY APPLN. INFO.:			US 2002-410679P	P 20020913
			WO 2003-US28252	W 20030910

OTHER SOURCE(S): MARPAT 140:287263

GI



AB The invention is related to a method for preparing 3-acylindolizines I by reacting a substrate II with either the cyclization reagent $R_3C(OR_2)2N(R_4)_2$ or, a reagent prepared by reaction of $R_3C(:O)N(R_4)_2$ with an alkylating agent [A = (un)substituted aryl; X = covalent bond, or C(:O), S(:O), SO_2 , NH and derivs., (un)substituted methylene; R_0 = H, halo, CN, CO_2H and derivs., C(:O)H and derivs., $CONH_2$ and derivs., SO_2H and derivs., SO_2NH_2 and derivs., (un)substituted aliphatic, aryl, non-aromatic heterocyclyl; R_1 = H, CN, OH and derivs., SH and derivs., NH_2 and derivs., (un)substituted aliphatic, aryl, non-aromatic heterocyclyl; R_2 = independently (un)substituted aliphatic, aryl, or both R_2 = linking group; R_3 = H, (un)substituted aryl; or an electron-withdrawing, or electron-donating group provided that if R_3 = H, at least one R_2 = secondary or tertiary alkyl, (un)substituted aryl; R_4 = independently H, (un)substituted aliphatic, aryl; or R_4NR_4 = (un)substituted heterocyclyl]. The advantages include high yields in the 3-acylindolizine, absence of 2-acylindolizine byproduct, and an environmental-friendly process. The invention is also directed to the use of I in the preparation of pharmacol. active 1-glyoxylamide indolizines III by further acylation of I with oxalyl chloride or a synthetic equivalent, and reaction with amines [B = (un)substituted ring or fused to an aryl group; R_5 , R_6 = independently H, (un)substituted aliphatic, non-aromatic heterocyclyl, aryl, provided that R_5 or R_6 are not both H, or NR_5R_6 = (un)substituted non-aromatic heterocyclyl, aryl; R_1 , R_2 , X defined as above]. For example, 4-[(Indolizin-3-yl)carbonyl]benzonitrile was prepared by cyclization of IV•Br- with N,N-dimethylformamide di-tert-butylacetal in DMF.

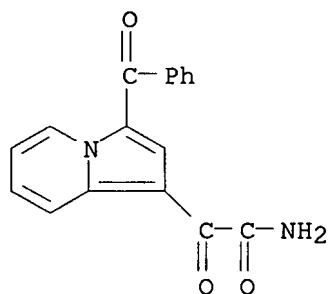
IT 675139-41-ODP, derivs.

RL: PNU (Preparation, unclassified); PREP (Preparation)

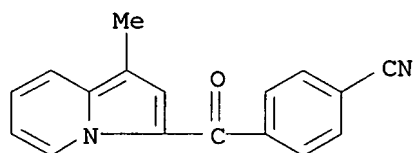
(1-glyoxylamide indolizine; synthesis of indolizines via cyclization of 2-methyl-1-phenacylpyridinium halides with amidoacetals)

RN 675139-41-0 CAPLUS

CN 1-Indolizineacetamide, 3-benzoyl- α -oxo- (9CI) (CA INDEX NAME)



IT 675139-24-9P, 4-[(1-Methylindolizin-3-yl)carbonyl]benzonitrile
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
 (Preparation)
 (indolizine product; synthesis of indolizines via cyclization of
 2-methyl-1-phenacylpyridinium halides with amidoacetals)
 RN 675139-24-9 CAPLUS
 CN Benzonitrile, 4-[(1-methyl-3-indoliziny)carbonyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 8 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:164572 CAPLUS
 DOCUMENT NUMBER: 140:374815
 TITLE: Reaction Modes and Mechanism in Indolizine
 Photooxygenation Reactions
 AUTHOR(S): Li, Yun; Hu, Hua-You; Ye, Jian-Ping; Fun, Hoong-Kun;
 Hu, Hong-Wen; Xu, Jian-Hua
 CORPORATE SOURCE: Department of Chemistry, Nanjing University, Nanjing,
 210093, Peop. Rep. China
 SOURCE: Journal of Organic Chemistry (2004), 69(7), 2332-2339
 CODEN: JOCEAH; ISSN: 0022-3263
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 140:374815
 AB Photooxygenations of 1,2-, 1,3-, and 2,3-di- and 1,2,3-trisubstituted
 indolizines under different reaction conditions in methanol and
 acetonitrile have been investigated to establish the general reaction
 pattern and mechanism in indolizine photooxygenation in view of the
 influence of the ring substituents and substitution pattern.
 Photooxygenations of 1-acyl-2-phenylindolizines and 1,3-dibenzoyl-2-
 phenylindolizine are self-sensitized, while those of 1-(p-nitrobenzoyl)-2-
 phenylindolizine and 2-phenyl-3-(p-chlorobenzoyl)indolizine need to be
 sensitized by rose bengal (RB) or methylene blue (MB). These reactions
 proceed via a singlet oxygen mechanism yet follow different pathways in
 methanol and in acetonitrile, with peroxidic zwitterion (in methanol) and
 dioxetane across the indolizine C2-C3 bond (in acetonitrile) as the
 intervening intermediates. Methanol trapping of the peroxidic zwitterion
 results in C3-N bond cleavage and pyrrole ring opening to give the
 corresponding (E)- and (Z)-3-(2-pyridinyl)-3-benzoylpropenoic acid Me
 esters and 4-(2-pyridinyl)-3-phenyl-5-aryl-5-hydroxyfuran-2-one as
 products in methanol, while O-O bond homolysis of the dioxetane furnishes
 3-(2-pyridinyl)-3-benzoyl-2-phenyloxirane-2-carboxaldehyde and

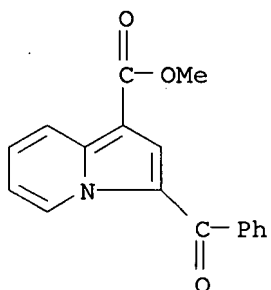
1-(6-methyl-2-pyridinyl)-2-phenylethanedione as products in acetonitrile. 3-Benzoyl-1-indolizinecarboxylic acid Me ester is unreactive toward singlet oxygen; however, it could be photooxygenated under electron transfer conditions with 9,10-dicyanoanthracene (DCA) as a sensitizer. This reaction takes place by the combination of the indolizine cation radical with the superoxide anion radical (or mol. oxygen) to give the pyridine ring oxidized Me 3-benzoyl-5-methoxy-8-hydroxy-1-indolizinecarboxylate, di-Me 2-(2-pyridinyl)fumarate, and di-Me 2-(2-pyridinyl)maleate as products.

IT 683774-96-1

RL: CPS (Chemical process); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent) (radical cation intermediate; reaction modes and mechanism in indolizine photooxygenation reactions)

RN 683774-96-1 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-, methyl ester, radical ion(1+) (9CI) (CA INDEX NAME)

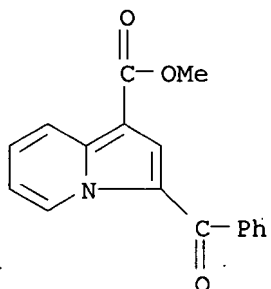


IT 17281-79-7

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (reaction modes and mechanism in indolizine photooxygenation reactions)

RN 17281-79-7 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-, methyl ester (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT:

67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:798417 CAPLUS

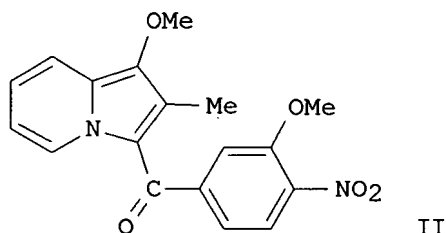
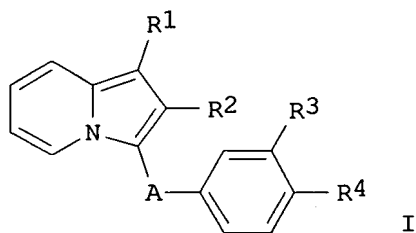
DOCUMENT NUMBER: 139:307679

TITLE: Preparation of 1,2,3-substituted indolizines as selective b-FGF antagonists and angiogenesis inhibitors for treatment of cancer and cardiovascular diseases

INVENTOR(S): Badorc, Alain; Guillo, Nathalie; Bono, Francoise;
Herbert, Jean Marc
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: Fr. Demande, 71 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2838123	A1	20031010	FR 2002-4220	20020404
FR 2838123	B1	20050610		
CA 2476056	A1	20031016	CA 2003-2476056	20030402
WO 2003084956	A1	20031016	WO 2003-FR1030	20030402
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003240984	A1	20031020	AU 2003-240984	20030402
EP 1495023	A1	20050112	EP 2003-730302	20030402
EP 1495023	B1	20050907		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003009026	A	20050209	BR 2003-9026	20030402
CN 1649867	A	20050803	CN 2003-807736	20030402
AT 304013	T	20050915	AT 2003-730302	20030402
JP 2005532286	T	20051027	JP 2003-582153	20030402
ES 2247540	T3	20060301	ES 2003-3730302	20030402
NZ 534786	A	20060630	NZ 2003-534786	20030402
IN 2004KN01212	A	20060303	IN 2004-KN1212	20040819
NO 2004004156	A	20050103	NO 2004-4156	20040930
US 2005203126	A1	20050915	US 2004-509919	20041004
PRIORITY APPLN. INFO.:			FR 2002-4220	A 20020404
			WO 2003-FR1030	W 20030402

OTHER SOURCE(S): MARPAT 139:307679
GI



AB Title compds. I [wherein R1 = OH, carboxy, alkoxy, carbonyl, amino and derivs., (un)substituted alkoxy, aminoalkylcarbonyl, etc.; R2 = alkyl, cycloalkyl, (un)substituted Ph; A = CO, SO or SO₂; R3, R4 = identical or different selected from H, alkoxy, amino and derivs., carboxy, alkoxy, carbonyl, OH, NO₂, hydroxyamino, (un)substituted alkylsulfonylamino, aminoalkoxy, etc.; or R3 and R4 = 5 or 6-membered heterocycle; with the proviso that when R3 = alkoxy, and R4 = (un)substituted aminoalkoxy or OH, R1 cannot be alkoxy; and their pharmaceutical acceptable salts] were prepared as selective basic fibroblast growth factor (b-FGF) antagonists and angiogenesis inhibitors. For example, II was prepared by Chichibabin cyclization of 2-(methoxymethyl)pyridine with chloroacetone, followed by benzoylation of the 1-methoxy-2-methylindolizine intermediate with 3-methoxy-4-nitrobenzoyl chloride in DCE at room temperature for 4 h. I inhibited the growth of b-FGF-expressing tumor cell lines (HUVEC) with a specific activity in the range of 10⁻⁹ M to 10⁻⁵ M. I exhibited a specific activity in the range of 10⁻¹¹ M to 10⁻⁷ M in an angiogenesis test in vitro. I are active by oral administration of doses of 0.1 to 100 mg/kg. Thus, I are useful for treatment of cancer, certain cardiovascular diseases, diabetic retinopathy, chronic inflammations, hypo- and achondroplasia.

IT 610765-77-0P, (1-Methoxy-2-methyl-indolizin-3-yl) (3-methoxy-4-nitrophenyl)methanone 610765-79-2P, (1-Benzoyloxy-2-methyl-indolizin-3-yl) (3-methoxy-4-nitrophenyl)methanone 610765-84-9P, (1-Methoxy-2-methyl-indolizin-3-yl) (4-methoxycarbonylphenyl)methanone 610765-89-4P, (1-Ethoxycarbonyl-2-methyl-indolizin-3-yl) (3-methoxy-4-nitrophenyl)methanone 610765-95-2P, (1-Amino-2-methyl-indolizin-3-yl) (3-methoxy-4-nitrophenyl)methanone 610765-97-4P, (3-Methoxy-4-nitrophenyl) [2-methyl-1-(methylamino)-indolizin-3-yl]methanone 610765-99-6P, (1-Hydroxy-2-methyl-indolizin-3-yl) (3-methoxy-4-nitrophenyl)methanone 610766-01-3P, [1-(2-Chloro-benzyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-11-5P, [1-(2-Acetyloxyethoxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-16-0P, Methyl 4-[(1-hydroxy-2-methyl-indolizin-3-yl)carbonyl]benzoate 610766-19-3P, 3-(3-Methoxy-4-nitrobenzoyl)-2-methyl-1-carboxyindolizine 610766-24-0P, (4-Amino-3-methoxyphenyl) (1-methoxy-2-methyl-indolizin-3-yl)methanone hydrochloride 610766-27-3P, (4-Amino-3-methoxyphenyl) (1-ethoxycarbonyl-2-methyl-indolizin-3-yl)methanone hydrochloride 610766-65-9P,

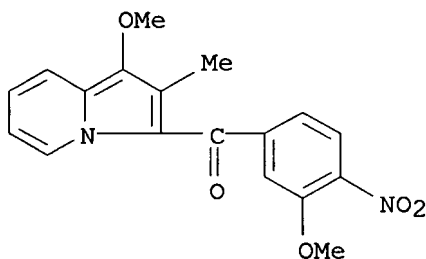
3-(4-Amino-3-methoxybenzoyl)-2-methyl-1-indolizine carboxylic acid 610766-77-3P, Ethyl 2-[2-methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]anilino]acetate 610766-81-9P, 3-(Dibutylamino)-N-[2-methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]phenyl]propanamide hydrochloride 610766-85-3P, Ethyl 2-[[3-(dibutylamino)propanoyl]-2-methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]anilino]acetate hydrochloride 610766-89-7P, N-[2-Methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]phenyl]-2-(dibutylamino)-1-ethanesulfonamide hydrochloride 610766-92-2P, 3-[3-Methoxy-4-[(methylsulfonyl)amino]benzoyl]-2-methyl-1-(ethoxycarbonyl)indolizine 610767-04-9P, (4-Amino-3-methoxyphenyl)[1-[(2-chlorobenzyl)oxy]-2-methyl-indolizin-3-yl]methanone 610767-08-3P, (4-Amino-3-methoxyphenyl)(1-methoxy-2-methyl-indolizin-3-yl)methanone 610767-11-8P, 2-[[[2-(Dibutylamino)ethyl]sulfonyl]-2-methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]anilino]acetic acid 610767-12-9P, N-[2-Methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]phenyl]-2-(dibutylamino)-1-ethanesulfonamide 610767-13-0P, 3-[3-Methoxy-4-[(methylsulfonyl)amino]benzoyl]-2-methyl-1-carboxyindolizine

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(b-FGF inhibitor; preparation of indolizines as selective b-FGF inhibitors)

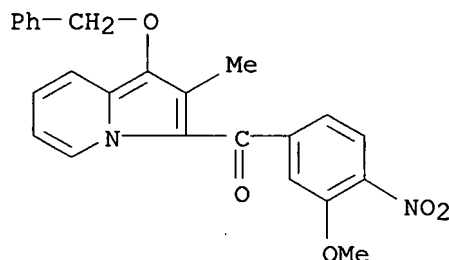
RN 610765-77-0 CAPLUS

CN Methanone, (1-methoxy-2-methyl-3-indoliziny)l(3-methoxy-4-nitrophenyl)-(9CI) (CA INDEX NAME)



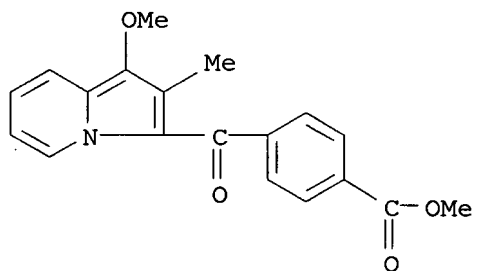
RN 610765-79-2 CAPLUS

CN Methanone, (3-methoxy-4-nitrophenyl)[2-methyl-1-(phenylmethoxy)-3-indoliziny]l-(9CI) (CA INDEX NAME)



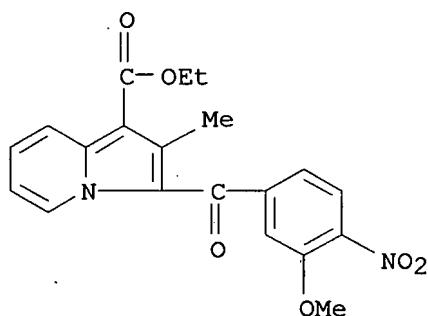
RN 610765-84-9 CAPLUS

CN Benzoic acid, 4-[(1-methoxy-2-methyl-3-indoliziny)lcarbonyl]-, methyl ester (9CI) (CA INDEX NAME)



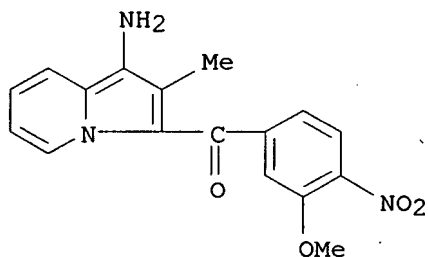
RN 610765-89-4 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-(3-methoxy-4-nitrobenzoyl)-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



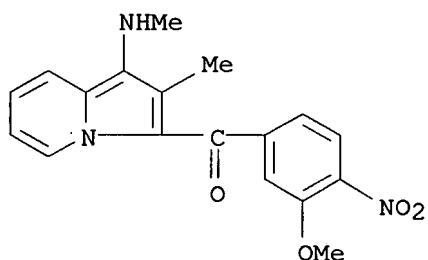
RN 610765-95-2 CAPLUS

CN Methanone, (1-amino-2-methyl-3-indoliziny) (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)



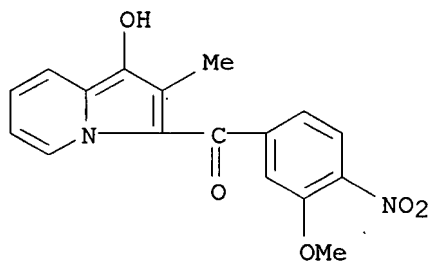
RN 610765-97-4 CAPLUS

CN Methanone, (3-methoxy-4-nitrophenyl) [2-methyl-1-(methylamino)-3-indoliziny]- (9CI) (CA INDEX NAME)



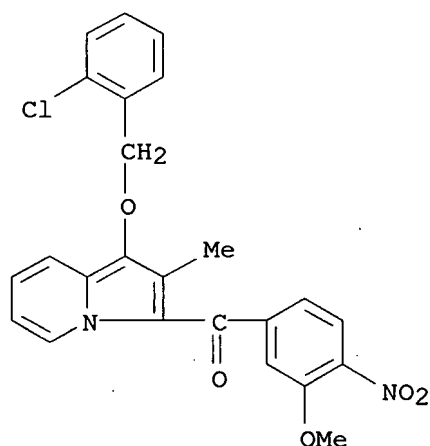
RN 610765-99-6 CAPLUS

CN Methanone, (1-hydroxy-2-methyl-3-indoliziny) (3-methoxy-4-nitrophenyl)-
(9CI) (CA INDEX NAME)



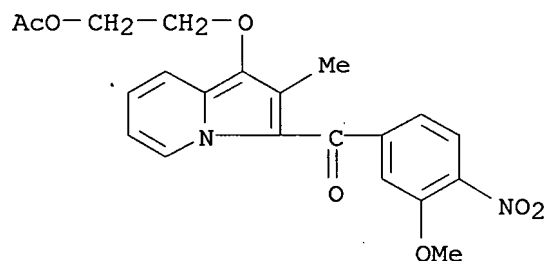
RN 610766-01-3 CAPLUS

CN Methanone, [1-[(2-chlorophenyl)methoxy]-2-methyl-3-indoliziny] (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)



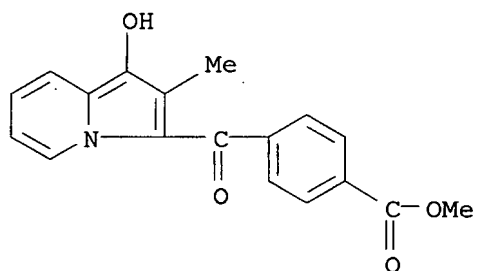
RN 610766-11-5 CAPLUS

CN Methanone, [1-[2-(acetyloxy)ethoxy]-2-methyl-3-indoliziny] (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)

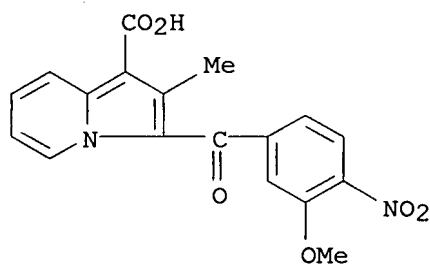


RN 610766-16-0 CAPLUS

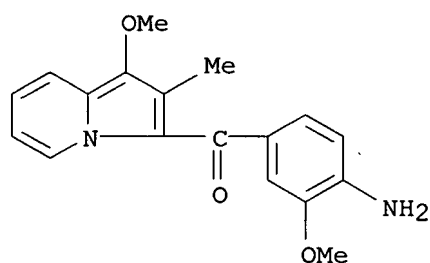
CN Benzoic acid, 4-[(1-hydroxy-2-methyl-3-indoliziny)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 610766-19-3 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-(3-methoxy-4-nitrobenzoyl)-2-methyl- (9CI)
 (CA INDEX NAME)

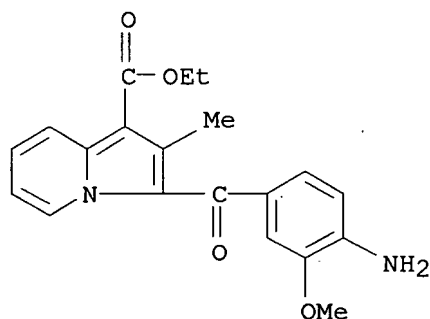


RN 610766-24-0 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl) (1-methoxy-2-methyl-3-indoliziny)-,
 hydrochloride (9CI) (CA INDEX NAME)



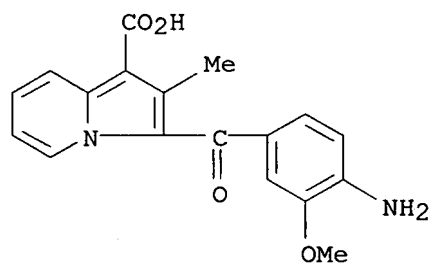
●x HCl

RN 610766-27-3 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-(4-amino-3-methoxybenzoyl)-2-methyl-, ethyl
 ester, hydrochloride (9CI) (CA INDEX NAME)

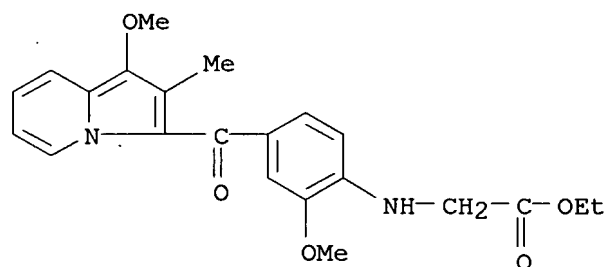


●x HCl

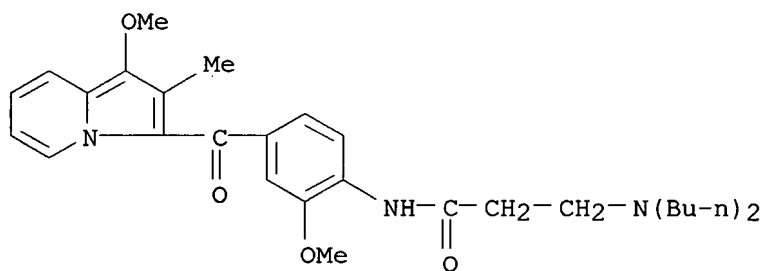
RN 610766-65-9 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-(4-amino-3-methoxybenzoyl)-2-methyl- (9CI)
 (CA INDEX NAME)



RN 610766-77-3 CAPLUS
 CN Glycine, N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)



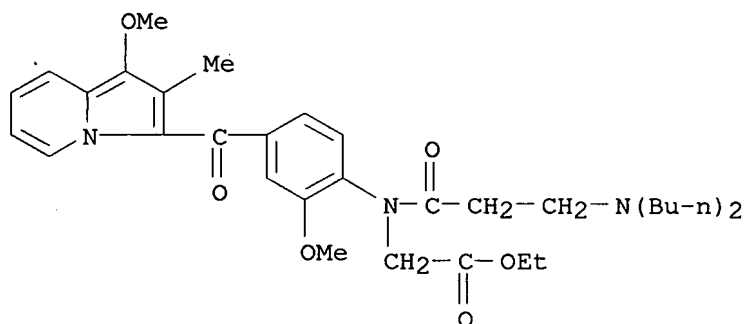
RN 610766-81-9 CAPLUS
 CN Propanamide, 3-(dibutylamino)-N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 610766-85-3 CAPLUS

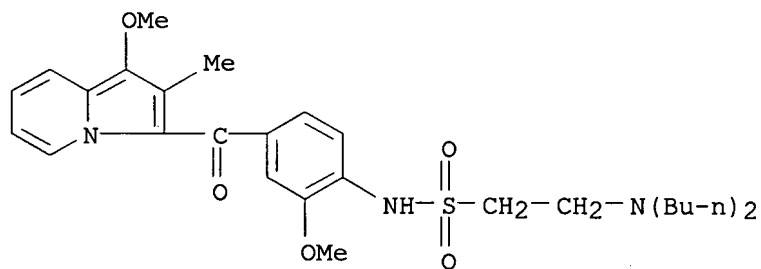
CN Glycine, N,N-dibutyl- β -alanyl-N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny]carbonyl]phenyl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 610766-89-7 CAPLUS

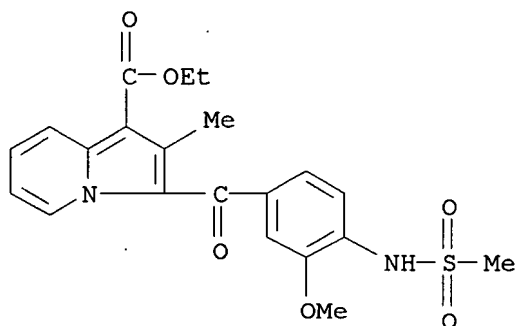
CN Ethanesulfonamide, 2-(dibutylamino)-N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny]carbonyl]phenyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

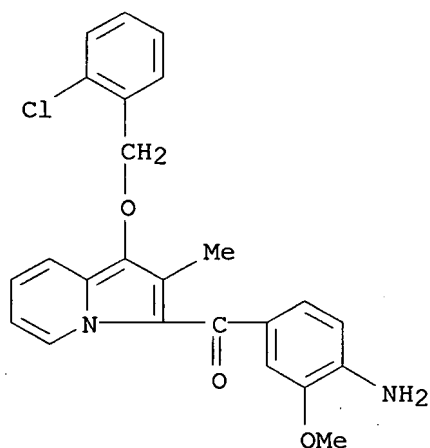
RN 610766-92-2 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-[3-methoxy-4-[(methanesulfonyl)amino]benzoyl]-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



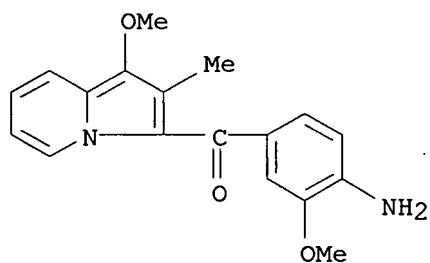
RN 610767-04-9 CAPLUS

CN Methanone, (4-amino-3-methoxyphenyl) [1-[(2-chlorophenyl)methoxy]-2-methyl-3-indolizinyloxy]- (9CI) (CA INDEX NAME)



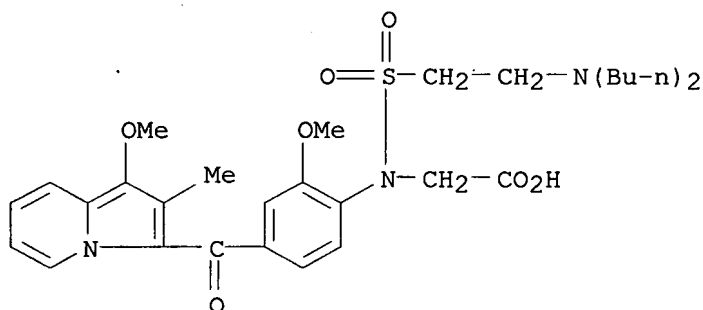
RN 610767-08-3 CAPLUS

CN Methanone, (4-amino-3-methoxyphenyl) (1-methoxy-2-methyl-3-indolizinyloxy)- (9CI) (CA INDEX NAME)



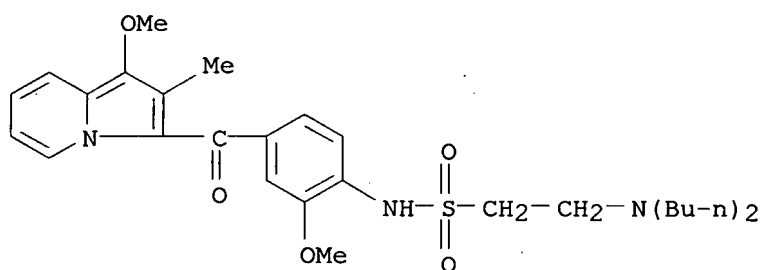
RN 610767-11-8 CAPLUS

CN Glycine, N-[[2-(dibutylamino)ethyl]sulfonyl]-N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indolizinyloxy)carbonyl]phenyl]- (9CI) (CA INDEX NAME)



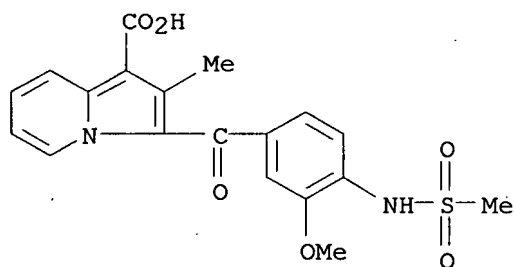
RN 610767-12-9 CAPLUS

CN Ethanesulfonamide, 2-(dibutylamino)-N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 610767-13-0 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-[3-methoxy-4-[(methanesulfonyl)amino]benzoyl]-2-methyl- (9CI) (CA INDEX NAME)



IT 610323-42-7P, (4-Amino-3-methoxyphenyl)-(1-t-butoxycarbonylamino-2-methyl-indolizin-3-yl)methanone 610765-80-5P, (1-Benzoyloxy-2-methyl-indolizin-3-yl) (4-methoxycarbonylphenyl)methanone 610765-83-8P, (1-Methoxy-2-methyl-indolizin-3-yl) (4-nitrophenyl)methanone 610765-85-0P, (1-Methoxy-2-methyl-indolizin-3-yl) (3-methoxycarbonylphenyl)methanone 610765-86-1P, (1-Methoxy-2-methyl-indolizin-3-yl) (3-nitro-4-methoxycarbonylphenyl)methanone 610765-87-2P, (1-Methoxy-2-methyl-indolizin-3-yl) (3-methoxy-4-methoxycarbonylphenyl)methanone 610765-88-3P, (1-Methoxy-2-methyl-indolizin-3-yl) (4-methoxycarbonylmethylphenyl)methanone 610765-90-7P, (1-Ethoxycarbonyl-2-methyl-indolizin-3-yl) (3-methoxy-4-methoxycarbonylphenyl)methanone 610765-92-9P, (1-Ethoxycarbonyl-2-methyl-indolizin-3-yl) (4-methoxycarbonylphenyl)methanone 610765-93-0P, [1-[(Methyl)(benzyl)amino]-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610765-94-1P, (1-t-Butoxycarbonylamino-2-methyl-indolizin-3-yl) (3-methoxy-4-

nitrophenyl)methanone 610765-96-3P, N-[3-(3-Methoxy-4-nitrobenzoyl)-2-methyl-indolizin-1-yl]methanesulfonamide 610765-98-5P, [1-(Dimethylamino)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-02-4P, [1-(3-Chloro-benzyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-03-5P, [1-(4-Chloro-benzyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-04-6P, [1-(2-Methoxy-benzyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-05-7P, [1-(3-Methoxy-benzyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-06-8P, [1-(4-Methoxy-benzyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-07-9P, [1-(3-Methoxycarbonyl-benzyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-08-0P, [1-(Ethoxycarbonylmethyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-09-1P, [1-(Aminocarbonylmethyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-10-4P, [1-(2-Dimethylaminoethoxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-12-6P, [1-(2-Hydroxyethoxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-13-7P, [1-(Cyanomethyloxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-14-8P, (1-i-Propoxy-2-methyl-indolizin-3-yl) (3-methoxy-4-nitrophenyl)methanone 610766-15-9P, [1-(Cyclopropylmethoxy)-2-methyl-indolizin-3-yl] (3-methoxy-4-nitrophenyl)methanone 610766-17-1P, Methyl 4-[[1-(2-ethoxy-2-oxoethoxy)-2-methyl-indolizin-3-yl]carbonyl]benzoate 610766-18-2P, Methyl 4-[[1-(3-methoxybenzyloxy)-2-methyl-indolizin-3-yl]carbonyl]benzoate 610766-20-6P, N-Ethyl 3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indolizinecarboxamide 610766-21-7P, Ethyl 2-[[[3-(3-methoxy-4-nitrobenzoyl)-2-methyl-indolizin-1-yl]carbonyl]amino]acetate 610766-28-4P, (4-Amino-3-methoxyphenyl) (1-(ethoxycarbonylmethoxy)-2-methyl-indolizin-3-yl)methanone hydrochloride 610766-29-5P, (4-Amino-3-methoxyphenyl) (1-(2-aminocarbonylmethyloxy)-2-methyl-indolizin-3-yl)methanone hydrochloride 610766-30-8P, (4-Amino-3-methoxyphenyl) (1-(2-hydroxyethoxy)-2-methyl-indolizin-3-yl)methanone hydrochloride 610766-31-9P, (4-Aminophenyl) (1-methoxy-2-methyl-indolizin-3-yl)methanone hydrochloride 610766-32-0P, (3-Methoxy-4-aminophenyl) (1-ethylaminocarbonyl-2-methyl-indolizin-3-yl)methanone hydrochloride 610766-33-1P, (4-Amino-3-methoxyphenyl) [1-[(2-chlorobenzyl)oxy]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-35-3P, (4-Amino-3-methoxyphenyl) (1-[2-(dimethylamino)ethoxy]-2-methyl-indolizin-3-yl)methanone hydrochloride 610766-36-4P, (4-Amino-3-methoxyphenyl) [1-[(4-chlorobenzyl)oxy]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-37-5P, (4-Amino-3-methoxyphenyl) [1-[(3-methoxybenzyl)oxy]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-38-6P, (4-Amino-3-methoxyphenyl) [1-[(4-methoxybenzyl)oxy]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-40-0P, (4-Amino-3-methoxyphenyl) [1-[(2-methoxybenzyl)oxy]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-42-2P, (4-Amino-3-methoxyphenyl) [1-[(3-methoxycarbonylbenzyl)oxy]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-43-3P, (4-Amino-3-methoxyphenyl) [1-[(4-methoxycarbonylbenzyl)oxy]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-44-4P, (4-Amino-3-methoxyphenyl) [1-[(3-chlorobenzyl)oxy]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-45-5P, (4-Amino-3-methoxyphenyl)-[1-[(methyl) (benzyl) amino]-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-46-6P, (4-Amino-3-methoxyphenyl)-[2-methyl-1-(methylamino)-indolizin-3-yl]methanone hydrochloride 610766-47-7P, (4-Amino-3-methoxyphenyl)-[2-methyl-1-(methylsulfonylamino)-indolizin-3-yl]methanone hydrochloride 610766-48-8P, [3-Amino-4-(methoxycarbonyl)phenyl] (1-methoxy-2-methyl-indolizin-3-yl)methanone 610766-51-3P,

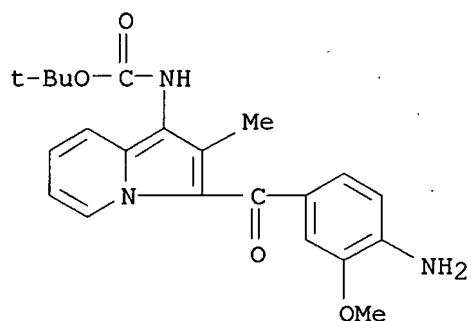
(4-Amino-3-methoxyphenyl)[1-(cyclopropylmethoxy)-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-52-4P, (4-Amino-3-methoxyphenyl)[1-(isobutoxy)-2-methyl-indolizin-3-yl]methanone hydrochloride 610766-54-6P, (4-Amino-3-methoxyphenyl)[1-(dimethylamino)-2-methyl-indolizin-3-yl]methanone dihydrochloride 610766-56-8P, Sodium 4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]benzoate 610766-57-9P, Sodium 3-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]benzoate 610766-59-1P, Sodium 2-nitro-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]benzoate 610766-61-5P, Sodium 2-amino-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]benzoate 610766-62-6P, Sodium 4-[[1-[(3-methoxybenzyl)oxy]-2-methyl-indolizin-3-yl]carbonyl]benzoate 610766-63-7P, Sodium 2-methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]benzoate 610766-64-8P 610766-66-0P, 3-(4-Amino-3-methoxybenzoyl)-2-methyl-1-carboxymethoxyindolizine 610766-67-1P, 3-(4-Amino-3-methoxybenzoyl)-2-methyl-1-[[[carboxymethyl]amino]carbonyl]indolizine sodium salt 610766-68-2P, 3-(4-Amino-3-methoxybenzoyl)-2-methyl-1-(3-carboxybenzyloxy)indolizine sodium salt 610766-69-3P, 3-(4-Amino-3-methoxybenzoyl)-2-methyl-1-(4-carboxybenzyloxy)indolizine sodium salt 610766-71-7P, 3-(4-Carboxybenzoyl)-2-methyl-1-carboxyindolizine disodium salt 610766-72-8P, 3-(4-Carboxybenzoyl)-2-methyl-1-(carboxymethoxy)-indolizine disodium salt 610766-73-9P, 3-(3-Methoxy-4-carboxybenzoyl)-2-methyl-1-carboxyindolizine disodium salt 610766-74-0P, (1-Methoxy-2-methyl-indolizin-3-yl)[4-[[3-(dibutylamino)propyl]amino]-3-methoxyphenyl]methanone hydrochloride 610766-75-1P, (1-Methoxy-2-methyl-indolizin-3-yl)[3-methoxy-4-(methylamino)phenyl]methanone hydrochloride 610766-78-4P, 2-[2-Methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]anilino]acetic acid 610766-83-1P, N-[2-Methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]phenyl]acetamide 610766-84-2P, Ethyl [2-Methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]phenyl]carbamate 610766-86-4P, 2-[[3-(Dibutylamino)propanoyl]-2-methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]anilino]acetic acid hydrochloride 610766-91-1P, N-[2-Methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]phenyl]methanesulfonamide 610766-93-3P, 3-[3-Methoxy-4-[(methylsulfonyl)amino]benzoyl]-2-methyl-1-carboxyindolizine sodium salt 610766-94-4P, 2-[[[2-(Dibutylamino)ethyl]sulfonyl]-2-methoxy-4-[(1-methoxy-2-methyl-indolizin-3-yl)carbonyl]anilino]acetic acid hydrochloride 610767-02-7DP, 3-(4-Amino-3-methoxybenzoyl)-2-methyl-1-[[[carboxymethyl]amino]carbonyl]indolizine hydrochloride, ester 610767-05-0P, 3-(4-Amino-3-methoxybenzoyl)-2-methyl-1-carboxyindolizine sodium salt 610767-06-1P, 3-(4-Amino-3-methoxybenzoyl)-2-methyl-1-carboxyindolizine hydrochloride

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

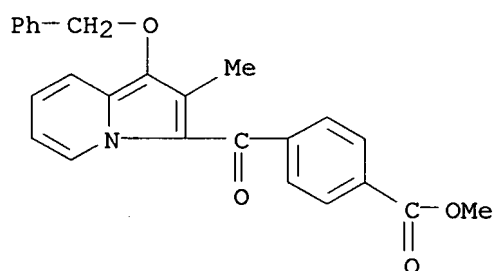
(b-FGF inhibitor; preparation of indolizines as selective b-FGF inhibitors)

RN 610323-42-7 CAPLUS

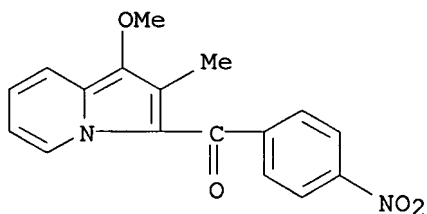
CN Carbamic acid, [3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



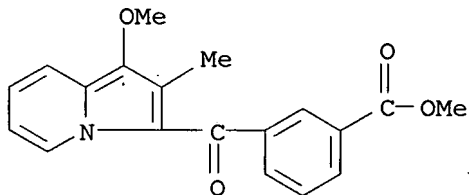
RN 610765-80-5 CAPLUS
 CN Benzoic acid, 4-[[2-methyl-1-(phenylmethoxy)-3-indoliziny]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



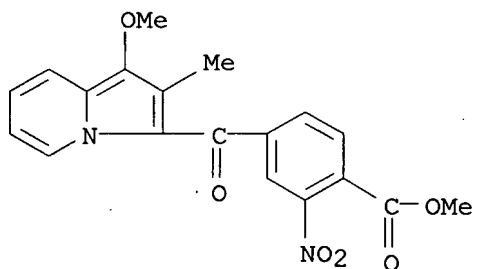
RN 610765-83-8 CAPLUS
 CN Methanone, (1-methoxy-2-methyl-3-indoliziny)(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 610765-85-0 CAPLUS
 CN Benzoic acid, 3-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

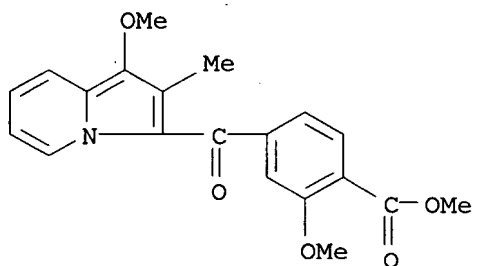


RN 610765-86-1 CAPLUS
 CN Benzoic acid, 4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-2-nitro-, methyl ester (9CI) (CA INDEX NAME)



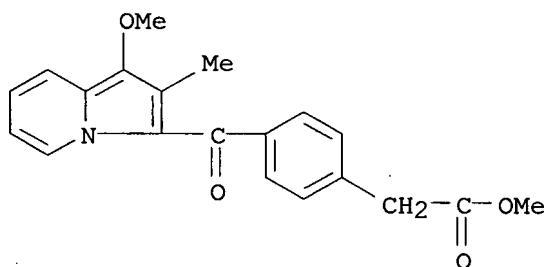
RN 610765-87-2 CAPLUS

CN Benzoic acid, 2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



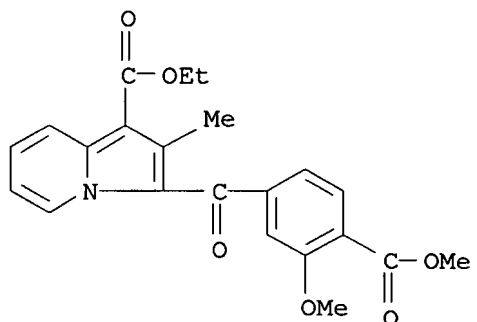
RN 610765-88-3 CAPLUS

CN Benzeneacetic acid, 4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



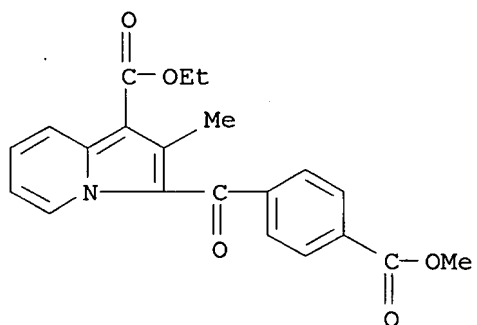
RN 610765-90-7 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-[3-methoxy-4-(methoxycarbonyl)benzoyl]-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



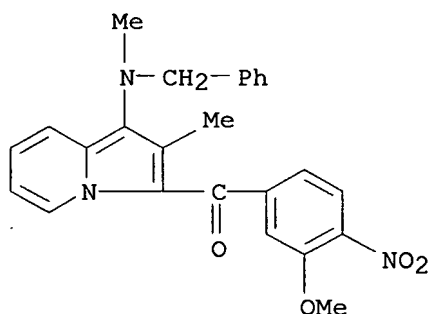
RN 610765-92-9 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-[4-(methoxycarbonyl)benzoyl]-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



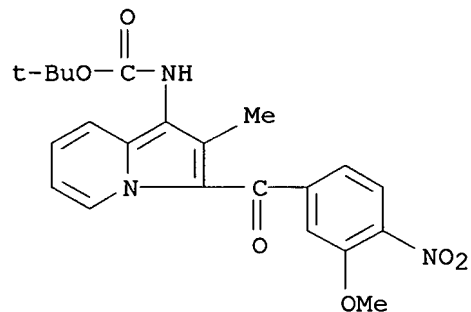
RN 610765-93-0 CAPLUS

CN Methanone, (3-methoxy-4-nitrophenyl)[2-methyl-1-[methyl(phenylmethyl)amino]-3-indoliziny]- (9CI) (CA INDEX NAME)



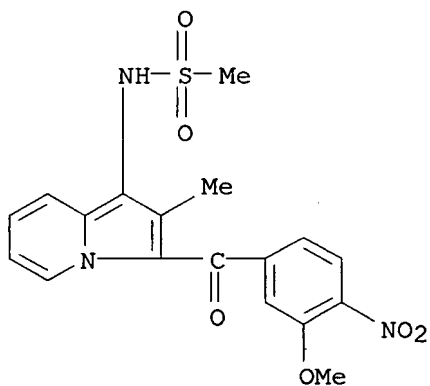
RN 610765-94-1 CAPLUS

CN Carbamic acid, [3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indoliziny]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



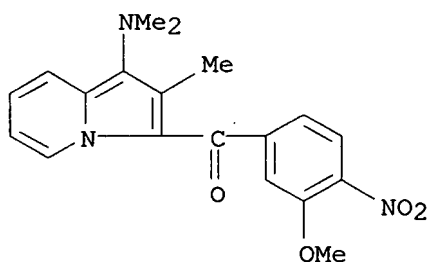
RN 610765-96-3 CAPLUS

CN Methanesulfonamide, N-[3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indoliziny]- (9CI) (CA INDEX NAME)



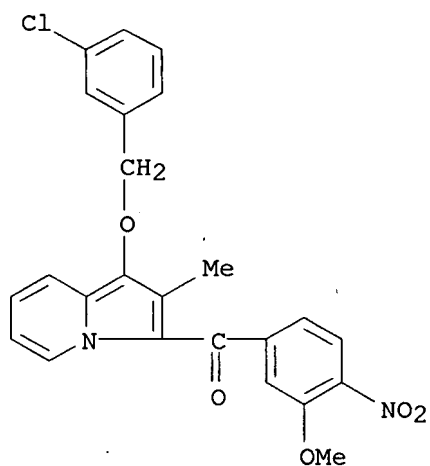
RN 610765-98-5 CAPLUS

CN Methanone, [1-(dimethylamino)-2-methyl-3-indoliziny] (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)



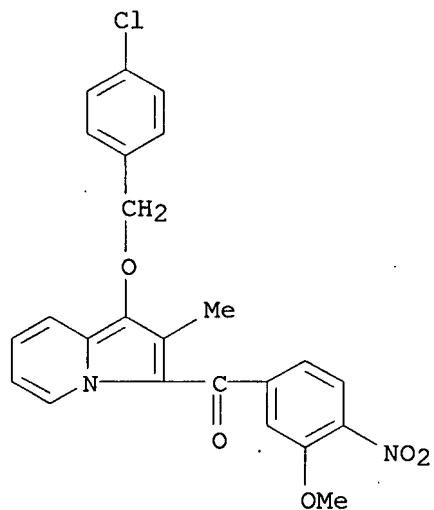
RN 610766-02-4 CAPLUS

CN Methanone, [1-[(3-chlorophenyl)methoxy]-2-methyl-3-indoliziny] (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)



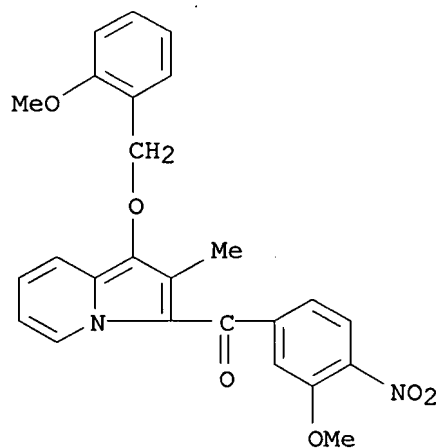
RN 610766-03-5 CAPLUS

CN Methanone, [1-[(4-chlorophenyl)methoxy]-2-methyl-3-indoliziny] (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)



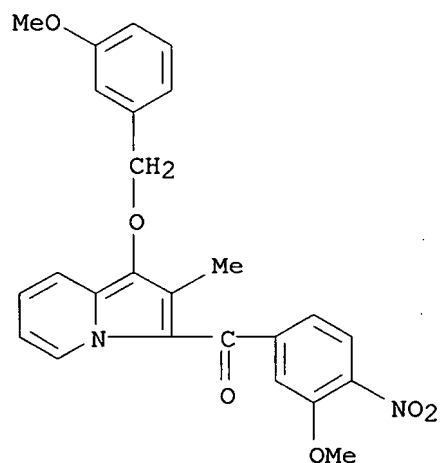
RN 610766-04-6 CAPLUS

CN Methanone, (3-methoxy-4-nitrophenyl)[1-[(2-methoxyphenyl)methoxy]-2-methyl-3-indolizinyloxy]- (9CI) (CA INDEX NAME)



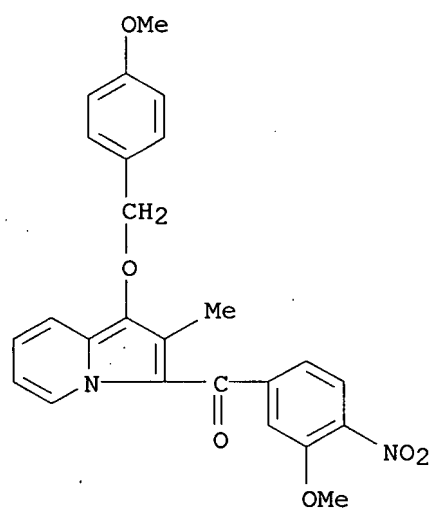
RN 610766-05-7 CAPLUS

CN Methanone, (3-methoxy-4-nitrophenyl)[1-[(3-methoxyphenyl)methoxy]-2-methyl-3-indolizinyloxy]- (9CI) (CA INDEX NAME)



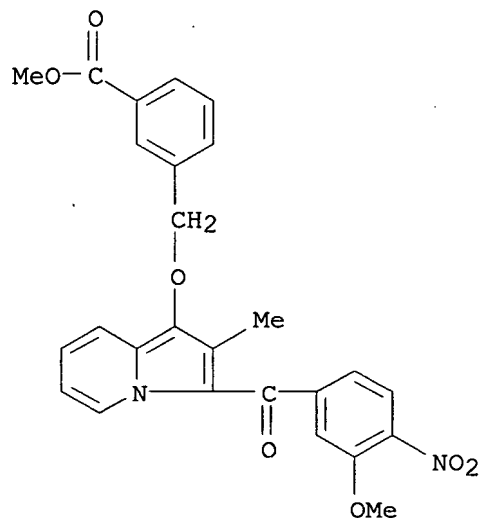
RN 610766-06-8 CAPLUS

CN Methanone, (3-methoxy-4-nitrophenyl)[1-[(4-methoxyphenyl)methoxy]-2-methyl-3-indoliziny]- (9CI) (CA INDEX NAME)

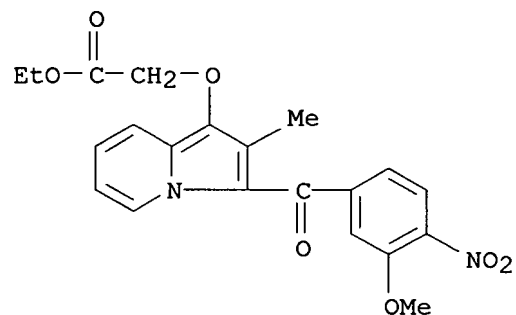


RN 610766-07-9 CAPLUS

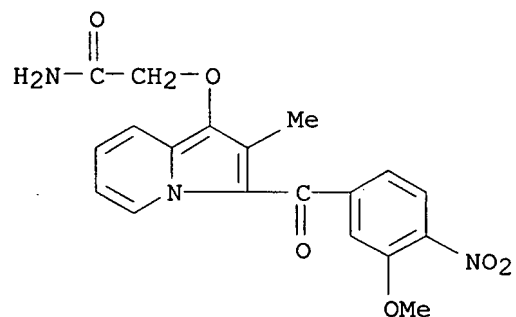
CN Benzoic acid, 3-[[[3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indolizinyloxy)methyl]-, methyl ester (9CI) (CA INDEX NAME)



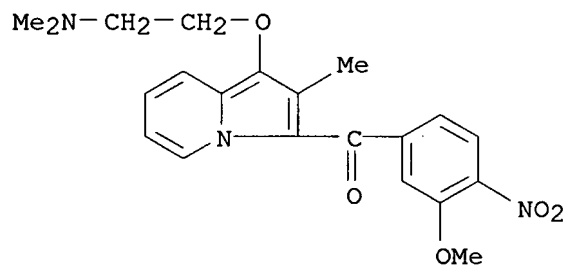
RN 610766-08-0 CAPLUS
 CN Acetic acid, [[3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indolizinyloxy]-, ethyl ester (9CI) (CA INDEX NAME)



RN 610766-09-1 CAPLUS
 CN Acetamide, 2-[[3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indolizinyloxy]- (9CI) (CA INDEX NAME)

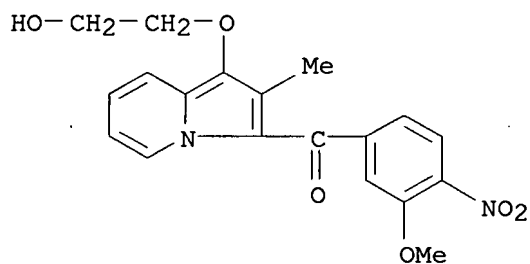


RN 610766-10-4 CAPLUS
 CN Methanone, [1-[2-(dimethylamino)ethoxy]-2-methyl-3-indolizinyloxy] (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)



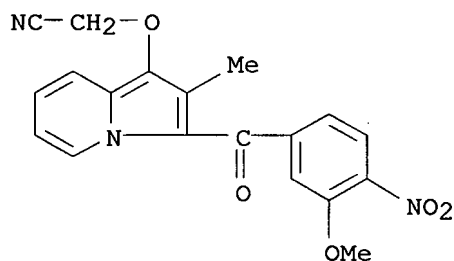
RN 610766-12-6 CAPLUS

CN Methanone, [1-(2-hydroxyethoxy)-2-methyl-3-indoliziny] (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)



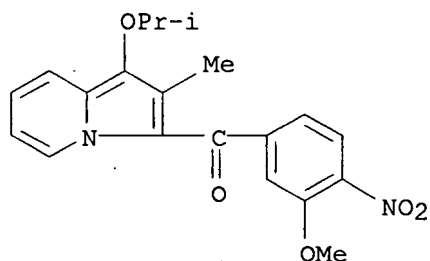
RN 610766-13-7 CAPLUS

CN Acetonitrile, [[3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indolizinyloxy]- (9CI) (CA INDEX NAME)



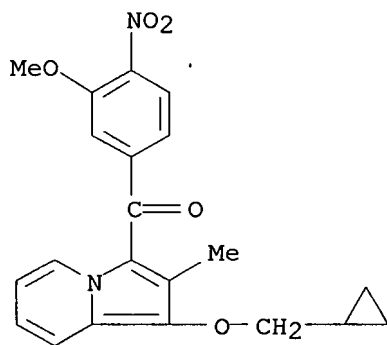
RN 610766-14-8 CAPLUS

CN Methanone, (3-methoxy-4-nitrophenyl) [2-methyl-1-(1-methylethoxy)-3-indoliziny]- (9CI) (CA INDEX NAME)



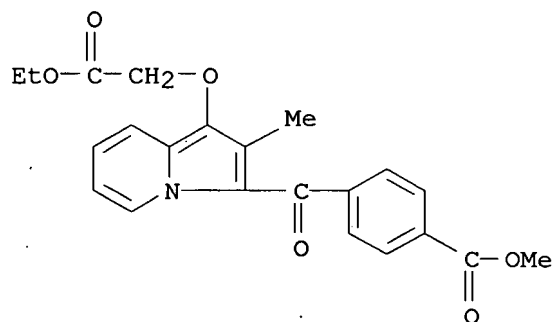
RN 610766-15-9 CAPLUS

CN Methanone, [1-(cyclopropylmethoxy)-2-methyl-3-indoliziny] (3-methoxy-4-nitrophenyl)- (9CI) (CA INDEX NAME)



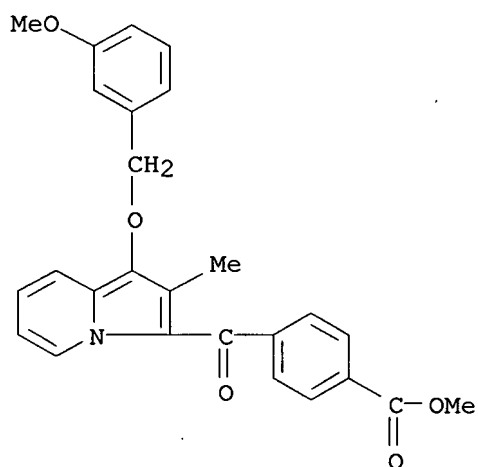
RN 610766-17-1 CAPLUS

CN Benzoic acid, 4-[[1-(2-ethoxy-2-oxoethoxy)-2-methyl-3-indoliziny]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



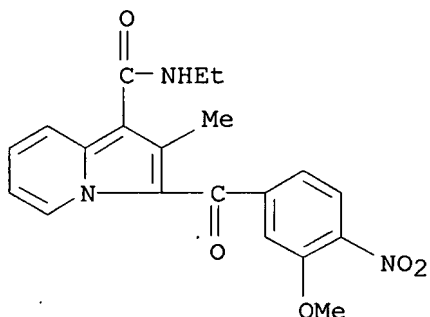
RN 610766-18-2 CAPLUS

CN Benzoic acid, 4-[[1-[(3-methoxyphenyl)methoxy]-2-methyl-3-indoliziny]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



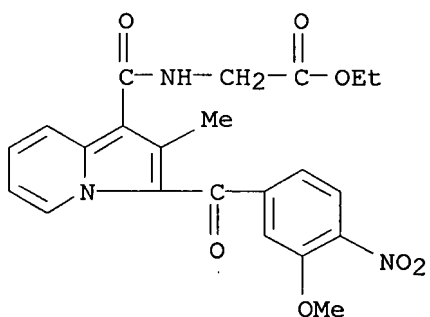
RN 610766-20-6 CAPLUS

CN 1-Indolizinecarboxamide, N-ethyl-3-(3-methoxy-4-nitrobenzoyl)-2-methyl- (9CI) (CA INDEX NAME)



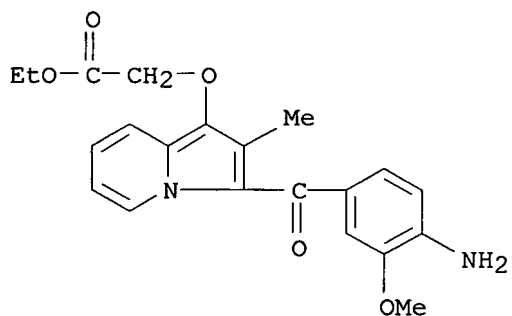
RN 610766-21-7 CAPLUS

CN Glycine, N-[[3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indoliziny]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 610766-28-4 CAPLUS

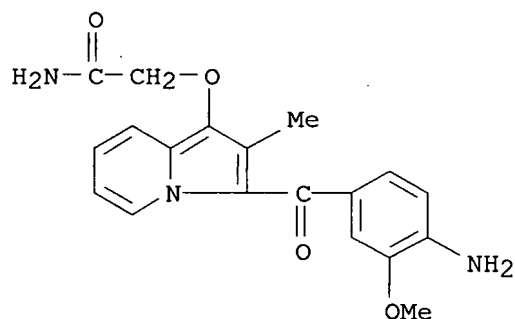
CN Acetic acid, [[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indoliziny]oxy]-, ethyl ester, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

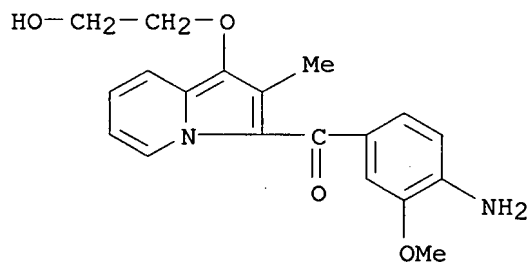
RN 610766-29-5 CAPLUS

CN Acetamide, 2-[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indoliziny]oxy]-, monohydrochloride (9CI) (CA INDEX NAME)



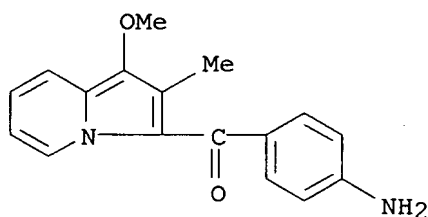
● HCl

RN 610766-30-8 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl) [1-(2-hydroxyethoxy)-2-methyl-3-indolizinyloxy]-, hydrochloride (9CI) (CA INDEX NAME)



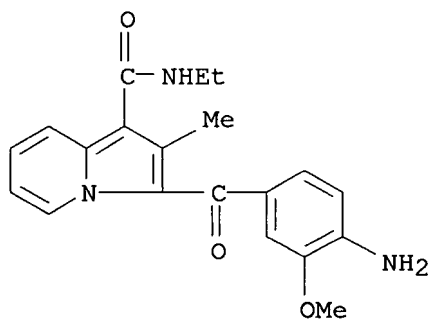
●x HCl

RN 610766-31-9 CAPLUS
 CN Methanone, (4-aminophenyl) (1-methoxy-2-methyl-3-indolizinyloxy)-, hydrochloride (9CI) (CA INDEX NAME)



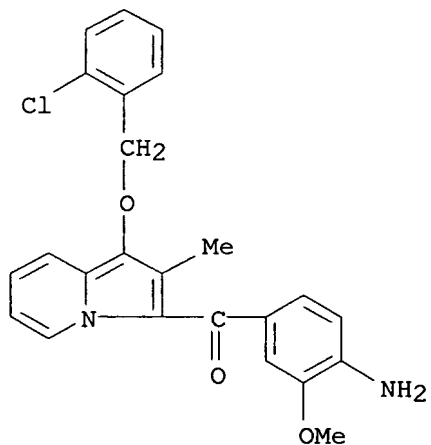
●x HCl

RN 610766-32-0 CAPLUS
 CN 1-Indolizinecarboxamide, 3-(4-amino-3-methoxybenzoyl)-N-ethyl-2-methyl-, hydrochloride (9CI) (CA INDEX NAME)



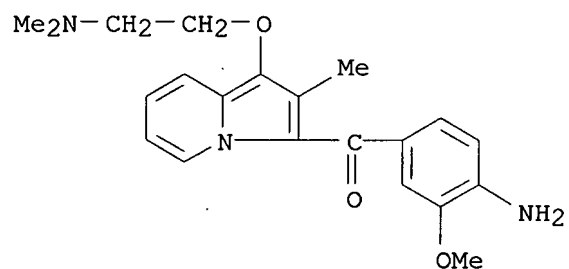
●x HCl

RN 610766-33-1 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl)[1-[(2-chlorophenyl)methoxy]-2-methyl-3-indolizinyloxy]-, hydrochloride (9CI) (CA INDEX NAME)



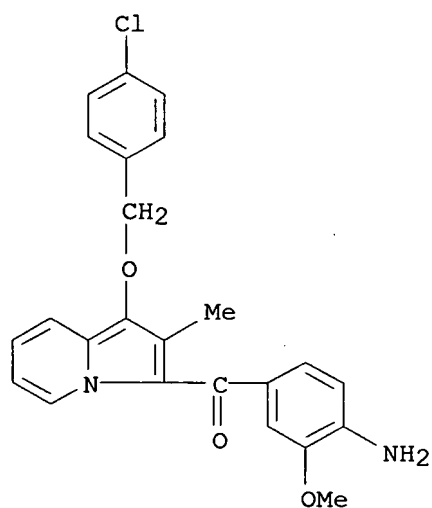
●x HCl

RN 610766-35-3 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl)[1-[2-(dimethylamino)ethoxy]-2-methyl-3-indolizinyloxy]-, hydrochloride (9CI) (CA INDEX NAME)



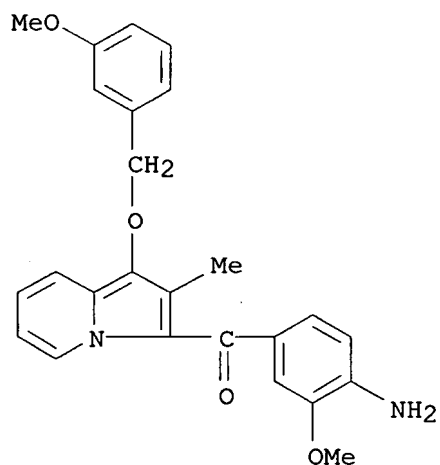
● x HCl

RN 610766-36-4 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl)[1-[(4-chlorophenyl)methoxy]-2-methyl-3-indolizinyloxy]-, hydrochloride (9CI) (CA INDEX NAME)



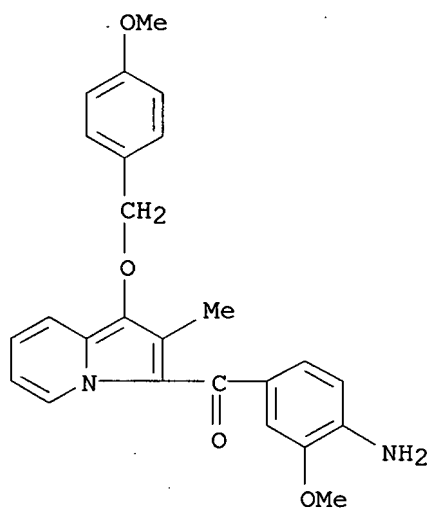
● x HCl

RN 610766-37-5 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl)[1-[(3-methoxyphenyl)methoxy]-2-methyl-3-indolizinyloxy]-, hydrochloride (9CI) (CA INDEX NAME)



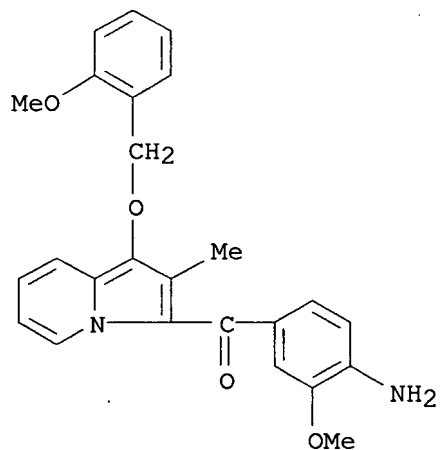
● x HCl

RN 610766-38-6 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl) [1-[(4-methoxyphenyl)methoxy]-2-methyl-3-indoliziny]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

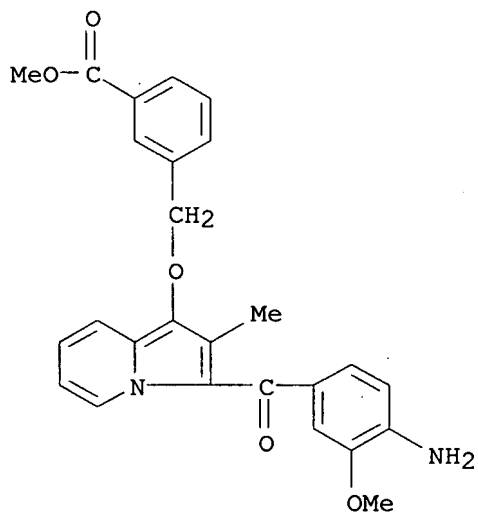
RN 610766-40-0 CAPLUS
 CN Methanone, (4-amino-3-methoxyphenyl) [1-[(2-methoxyphenyl)methoxy]-2-methyl-3-indoliziny]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 610766-42-2 CAPLUS

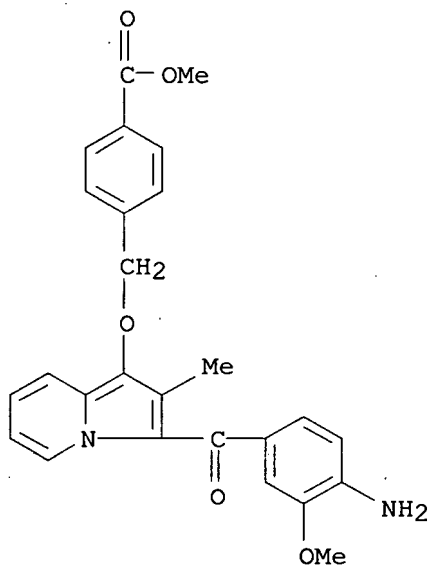
CN Benzoic acid, 3-[[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]methyl]-, methyl ester, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 610766-43-3 CAPLUS

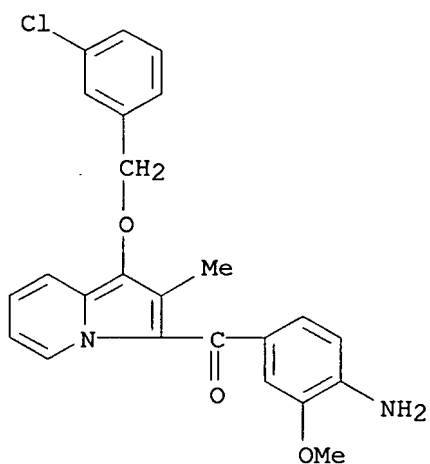
CN Benzoic acid, 4-[[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]methyl]-, methyl ester, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 610766-44-4 CAPLUS

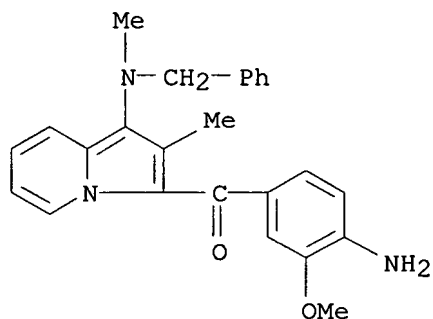
CN Methanone, (4-amino-3-methoxyphenyl) [1-[(3-chlorophenyl)methoxy]-2-methyl-3-indoliziny]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 610766-45-5 CAPLUS

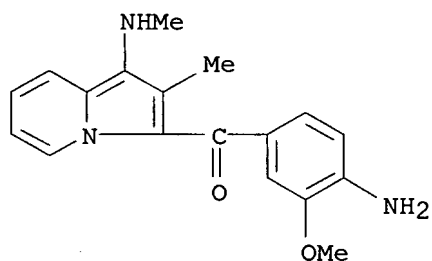
CN Methanone, (4-amino-3-methoxyphenyl) [2-methyl-1-[methyl(phenylmethyl)amino]-3-indoliziny]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 610766-46-6 CAPLUS

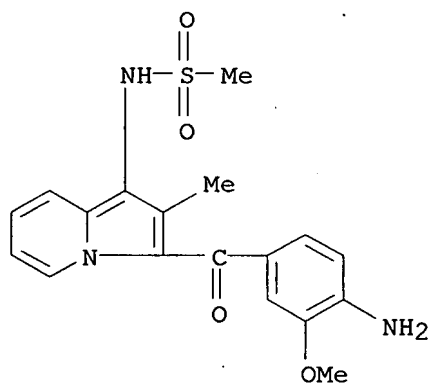
CN Methanone, (4-amino-3-methoxyphenyl)[2-methyl-1-(methylamino)-3-indoliziny]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 610766-47-7 CAPLUS

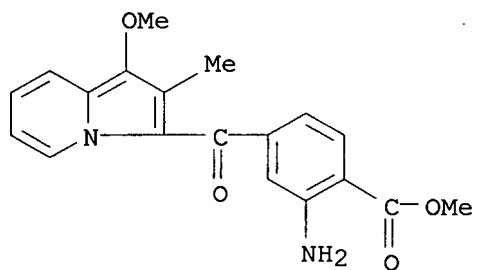
CN Methanesulfonamide, N-[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indoliziny]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

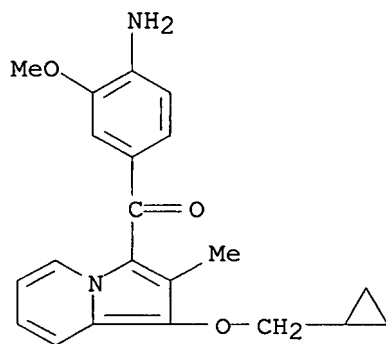
RN 610766-48-8 CAPLUS

CN Benzoic acid, 2-amino-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 610766-51-3 CAPLUS

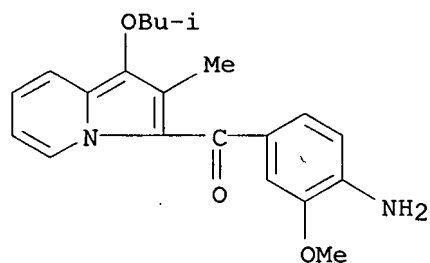
CN Methanone, (4-amino-3-methoxyphenyl)[1-(cyclopropylmethoxy)-2-methyl-3-indoliziny]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 610766-52-4 CAPLUS

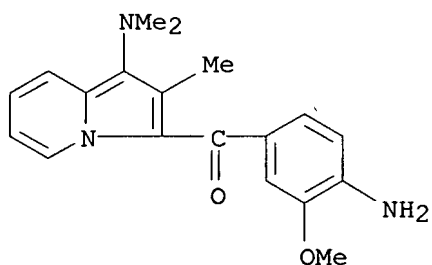
CN Methanone, (4-amino-3-methoxyphenyl)[2-methyl-1-(2-methylpropoxy)-3-indoliziny]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 610766-54-6 CAPLUS

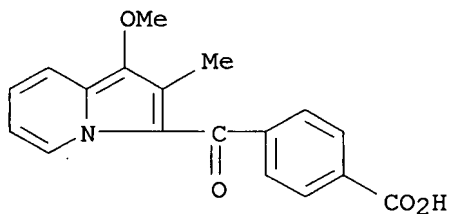
CN Methanone, (4-amino-3-methoxyphenyl)[1-(dimethylamino)-2-methyl-3-indoliziny]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 610766-56-8 CAPLUS

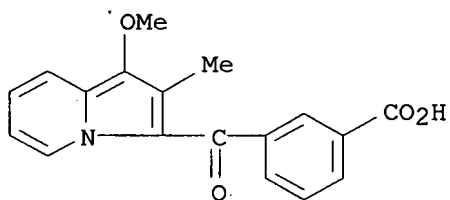
CN Benzoic acid, 4-[(1-methoxy-2-methyl-3-indolizinyl)carbonyl]-, sodium salt
(9CI) (CA INDEX NAME)



● Na

RN 610766-57-9 CAPLUS

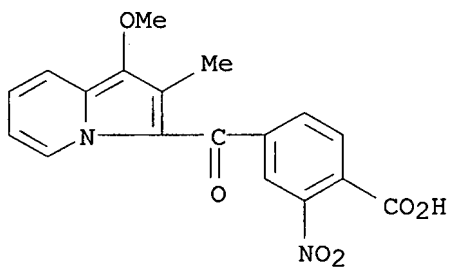
CN Benzoic acid, 3-[(1-methoxy-2-methyl-3-indolizinyl)carbonyl]-, sodium salt
(9CI) (CA INDEX NAME)



● Na

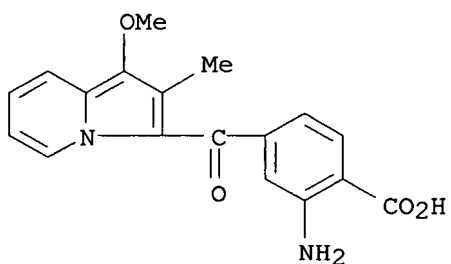
RN 610766-59-1 CAPLUS

CN Benzoic acid, 4-[(1-methoxy-2-methyl-3-indolizinyl)carbonyl]-2-nitro-,
sodium salt (9CI) (CA INDEX NAME)



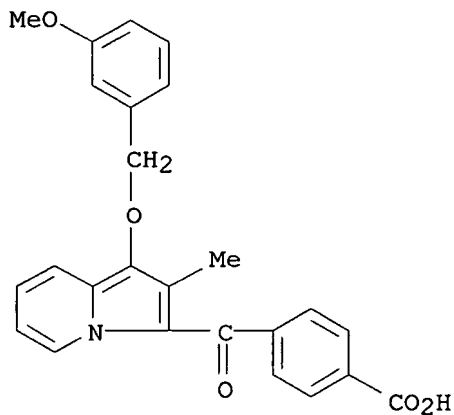
● Na

RN 610766-61-5 CAPLUS
 CN Benzoic acid, 2-amino-4-[(1-methoxy-2-methyl-3-indolizinyl)carbonyl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

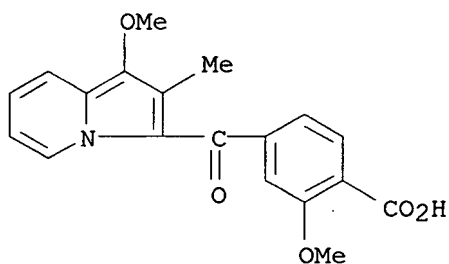
RN 610766-62-6 CAPLUS
 CN Benzoic acid, 4-[[1-[(3-methoxyphenyl)methoxy]-2-methyl-3-indolizinyl]carbonyl]-, sodium salt (9CI) (CA INDEX NAME)



● Na

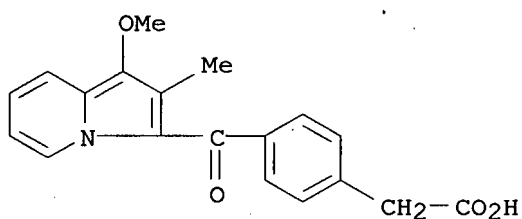
RN 610766-63-7 CAPLUS

CN Benzoic acid, 2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-,
sodium salt (9CI) (CA INDEX NAME)



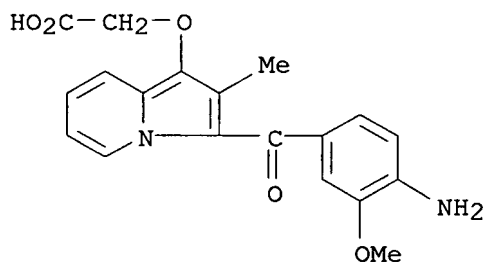
● Na

RN 610766-64-8 CAPLUS
CN Benzeneacetic acid, 4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]-,
sodium salt (9CI) (CA INDEX NAME)

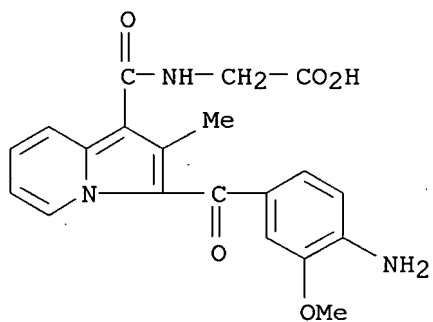


● Na

RN 610766-66-0 CAPLUS
CN Acetic acid, [[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]-
(9CI) (CA INDEX NAME)

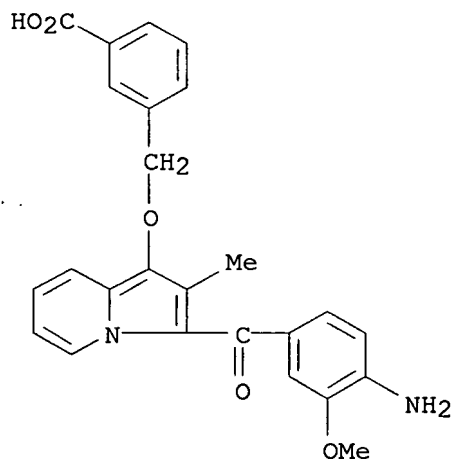


RN 610766-67-1 CAPLUS
CN Glycine, N-[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]carbonyl]-
, monosodium salt (9CI) (CA INDEX NAME)



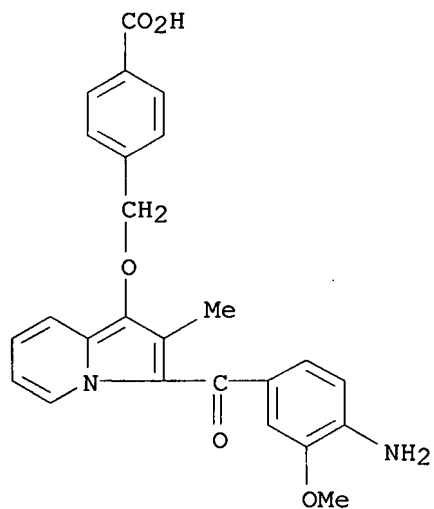
● Na

RN 610766-68-2 CAPLUS
 CN Benzoic acid, 3-[[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]methyl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

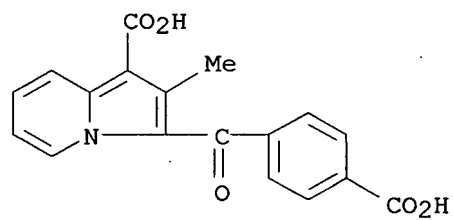
RN 610766-69-3 CAPLUS
 CN Benzoic acid, 4-[[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinyloxy]methyl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

RN 610766-71-7 CAPLUS

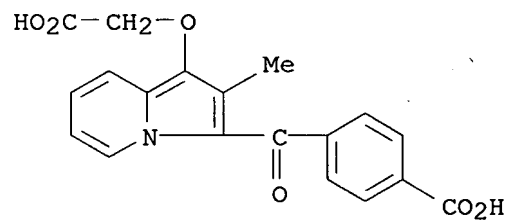
CN 1-Indolizinecarboxylic acid, 3-(4-carboxybenzoyl)-2-methyl-, disodium salt
(9CI) (CA INDEX NAME)



●2 Na

RN 610766-72-8 CAPLUS

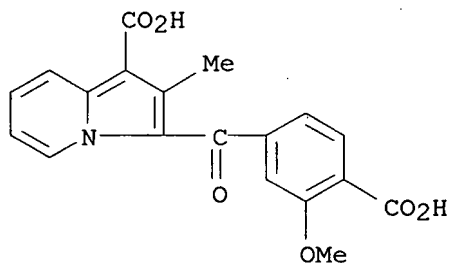
CN Benzoic acid, 4-[[1-(carboxymethoxy)-2-methyl-3-indoliziny]carbonyl]-,
disodium salt (9CI) (CA INDEX NAME)



●2 Na

RN 610766-73-9 CAPLUS

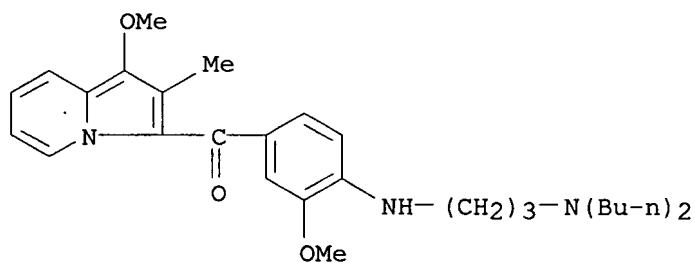
CN 1-Indolizinecarboxylic acid, 3-(4-carboxy-3-methoxybenzoyl)-2-methyl-,
disodium salt (9CI) (CA INDEX NAME)



● 2 Na

RN 610766-74-0 CAPLUS

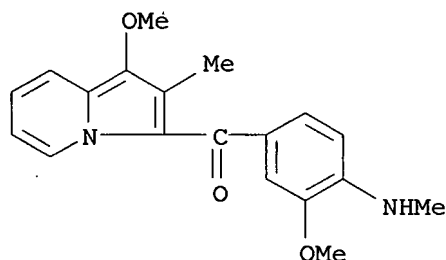
CN Methanone, [4-[[3-(dibutylamino)propyl]amino]-3-methoxyphenyl](1-methoxy-2-methyl-3-indoliziny)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 610766-75-1 CAPLUS

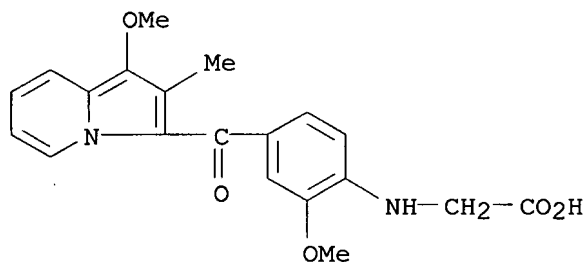
CN Methanone, [3-methoxy-4-(methylamino)phenyl](1-methoxy-2-methyl-3-indoliziny)-, monohydrochloride (9CI) (CA INDEX NAME)



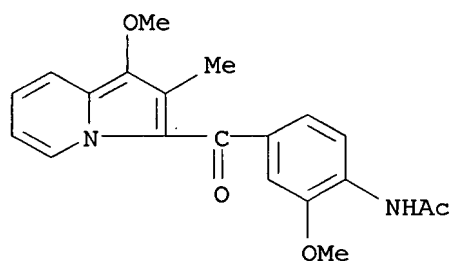
● HCl

RN 610766-78-4 CAPLUS

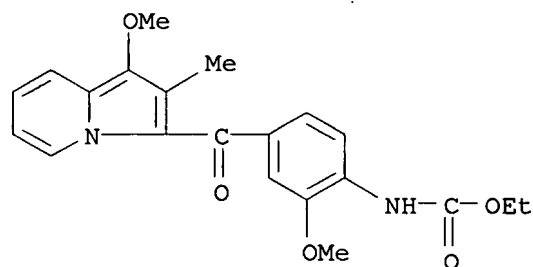
CN Glycine, N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]- (9CI) (CA INDEX NAME)



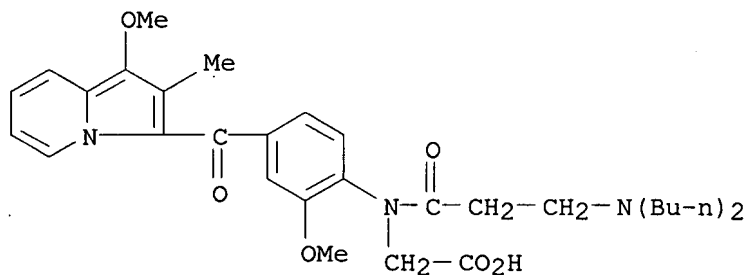
RN 610766-83-1 CAPLUS
 CN Acetamide, N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 610766-84-2 CAPLUS
 CN Carbamic acid, [2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

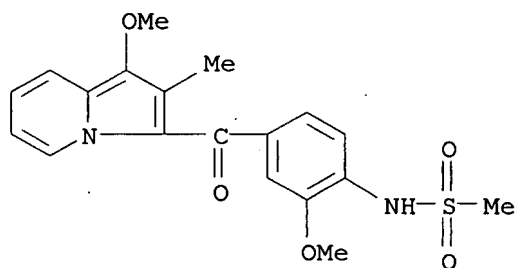


RN 610766-86-4 CAPLUS
 CN Glycine, N,N-dibutyl-β-alanyl-N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

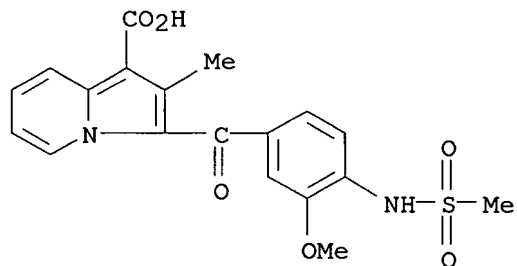


● HCl

RN 610766-91-1 CAPLUS
 CN Methanesulfonamide, N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

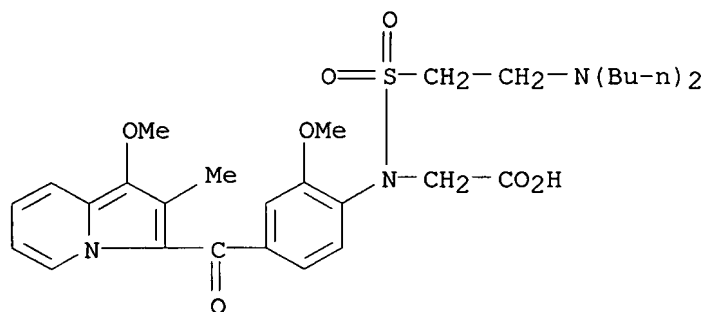


RN 610766-93-3 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-[3-methoxy-4-[(methylsulfonyl)amino]benzoyl]-2-methyl-, monosodium salt (9CI) (CA INDEX NAME)



● Na

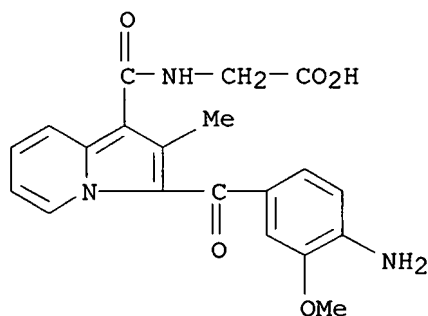
RN 610766-94-4 CAPLUS
 CN Glycine, N-[[2-(dibutylamino)ethyl]sulfonyl]-N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny)carbonyl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 610767-02-7 CAPLUS

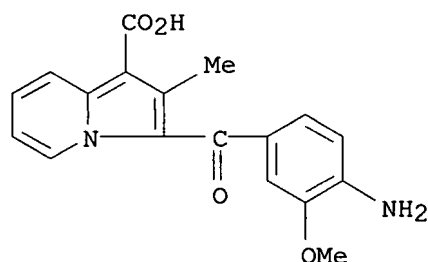
CN Glycine, N-[[3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indoliziny]carbonyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 610767-05-0 CAPLUS

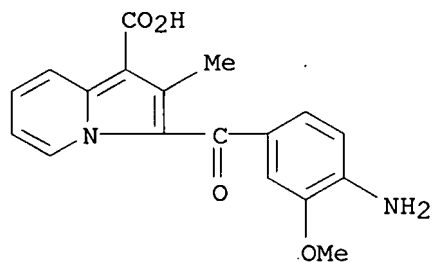
CN 1-Indolizinecarboxylic acid, 3-(4-amino-3-methoxybenzoyl)-2-methyl-, monosodium salt (9CI) (CA INDEX NAME)



● Na

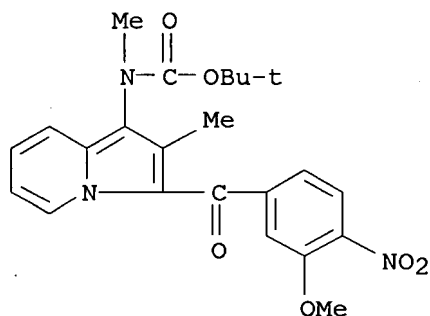
RN 610767-06-1 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-(4-amino-3-methoxybenzoyl)-2-methyl-, hydrochloride (9CI) (CA INDEX NAME)

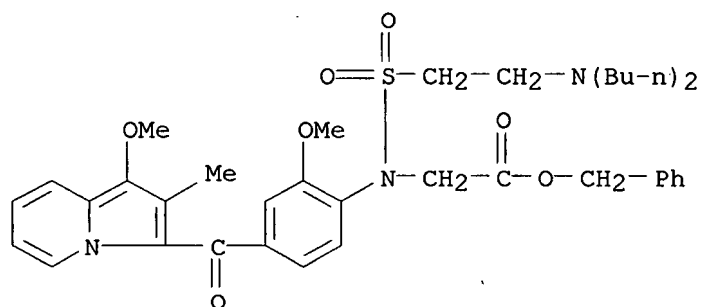


●x .HCl

IT 610767-01-6P, tert-Butyl N-[3-(3-methoxy-4-nitrobenzoyl)-2-methylindolizine-1-yl] (methyl) carbamate 610767-10-7P, Benzyl 2-[[[2-(dibutylamino)ethyl]sulfonyl]-2-methoxy-4-[(1-methoxy-2-methylindolizine-3-yl)carbonyl]anilino]acetate
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of indolizines as selective b-FGF inhibitors)
 RN 610767-01-6 CAPLUS
 CN Carbamic acid, [3-(3-methoxy-4-nitrobenzoyl)-2-methyl-1-indoliziny]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 610767-10-7 CAPLUS
 CN Glycine, N-[[2-(dibutylamino)ethyl]sulfonyl]-N-[2-methoxy-4-[(1-methoxy-2-methyl-3-indoliziny]carbonyl]phenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

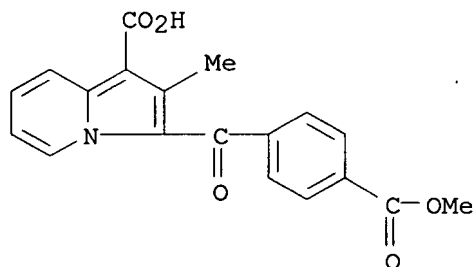


IT 610767-07-2P, 3-[4-(Methoxycarbonyl)benzoyl]-2-methyl-1-carboxyindolizine

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of indolizines as selective b-FGF inhibitors)

RN 610767-07-2 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-[4-(methoxycarbonyl)benzoyl]-2-methyl-
(9CI) (CA INDEX NAME)



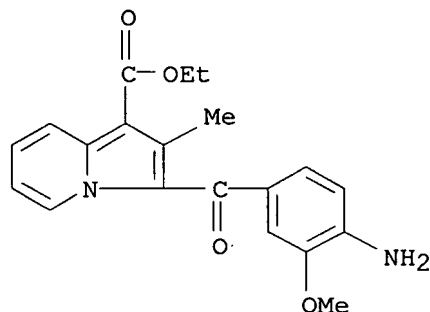
IT 610767-14-1, Ethyl 3-(4-amino-3-methoxybenzoyl)-2-methyl-1-indolizinecarboxylate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of indolizines as selective b-FGF inhibitors)

RN 610767-14-1 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-(4-amino-3-methoxybenzoyl)-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:221687 CAPLUS

DOCUMENT NUMBER: 138:238174

TITLE: Preparation of 2-(indolizin-1-yl)-N-(isothiazol-5-yl)-2-oxo-acetamides for treating cancer

INVENTOR(S): Koya, Keizo; Sun, Lijun; Ono, Mitsunori; Ying, Weiwen; Li, Hao

PATENT ASSIGNEE(S): SBR Pharmaceuticals Corp., USA

SOURCE: PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022846	A1	20030320	WO 2002-US29154	20020913

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2459886	A1	20030320	CA 2002-2459886	20020913
AU 2002333626	A1	20030324	AU 2002-333626	20020913
EP 1432709	A1	20040630	EP 2002-798231	20020913
EP 1432709	B1	20050727		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

BR 2002012794	A	20041005	BR 2002-12794	20020913
CN 1568324	A	20050119	CN 2002-820284	20020913
JP 2005504795	T	20050217	JP 2003-526921	20020913
AT 300542	T	20050815	AT 2002-798231	20020913
PT 1432709	T	20051031	PT 2002-798231	20020913
EP 1598352	A1	20051123	EP 2005-16203	20020913

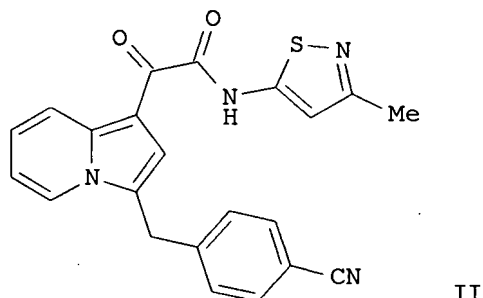
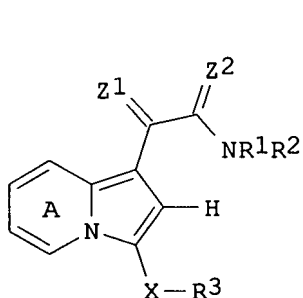
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

ES 2245747	T3	20060116	ES 2002-2798231	20020913
NZ 531700	A	20061027	NZ 2002-531700	20020913
NO 2004001035	A	20040430	NO 2004-1035	20040311
ZA 2004001996	A	20050531	ZA 2004-1996	20040311
IN 2004DN00664	A	20050401	IN 2004-DN664	20040316
HK 1063322	A1	20051209	HK 2004-106091	20040813

PRIORITY APPLN. INFO.:

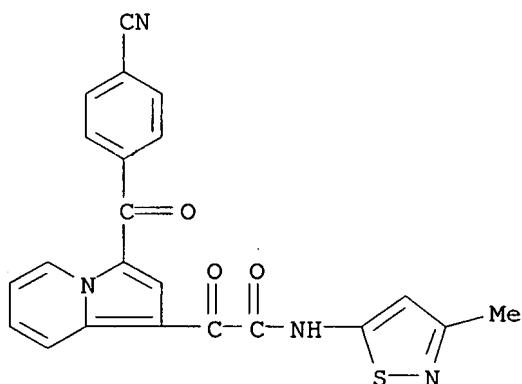
US 2001-322020P	P	20010913
EP 2002-798231	A3	20020913
WO 2002-US29154	W	20020913

OTHER SOURCE(S): MARPAT 138:238174
 GI

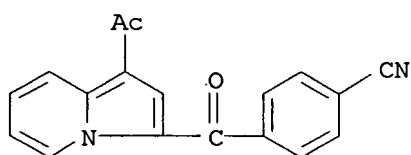


AB The title 1-glyoxylylamide indolizines [I; Ring A is (un)substituted and optionally fused to an aryl group; Z1, Z2 = O, S, N(OR12), NR12; R1, R2 = H, (un)substituted aliphatic group, (un)substituted non-aromatic heterocyclic group, etc.; or NR1R2 = (un)substituted non-aromatic nitrogen-containing heterocyclic group or nitrogen-containing heteroaryl group; R3 = (un)substituted aryl or aliphatic group; X = a bond, CR4R5, NR4, O, etc.; R4, R5 = H, (un)substituted aliphatic group; R12 = H, (un)substituted alkyl], useful in treating a multi-drug resistant cancer, were prepared E.g., multi-step synthesis of II, starting from 4-cyanophenacyl bromide and pyridine, was given. The compound II demonstrated significantly high anti-cancer activity (IC50: 0.01-0.05 μ M) against seven cancer cell lines from different tissue type, and also high anti-cancer activity

(0.02-0.05 μ M) against two MDR cancer cell lines.
 IT 501948-27-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of 2-(indolizin-1-yl)-N-(isothiazol-5-yl)-2-oxo-acetamides for treating cancer)
 RN 501948-27-2 CAPLUS
 CN 1-Indolizineacetamide, 3-(4-cyanobenzoyl)-N-(3-methyl-5-isothiazolyl)- α -oxo- (9CI) (CA INDEX NAME)



IT 501948-41-0P, 1-Acetyl-3-(4-cyanobenzoyl)indolizine
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of 2-(indolizin-1-yl)-N-(isothiazol-5-yl)-2-oxo-acetamides for treating cancer)
 RN 501948-41-0 CAPLUS
 CN Benzonitrile, 4-[(1-acetyl-3-indoliziny)carbonyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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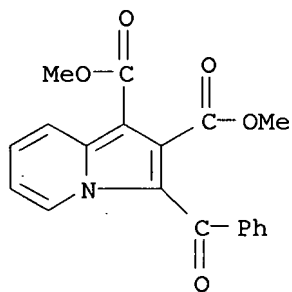
L4 ANSWER 11 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:53760 CAPLUS
 DOCUMENT NUMBER: 138:255038
 TITLE: A Novel Microwave-Mediated One-Pot Synthesis of Indolizines via a Three-Component Reaction
 AUTHOR(S): Bora, Utpal; Saikia, Anil; Boruah, Romesh C.
 CORPORATE SOURCE: Medicinal Chemistry Division, Regional Research Laboratory, Jorhat, 785006, India
 SOURCE: Organic Letters (2003), 5(4), 435-438
 CODEN: ORLEF7; ISSN: 1523-7060
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 138:255038

AB The microwave-mediated three-component reaction of acyl bromide, pyridine, and acetylene is catalyzed by basic alumina to give corresponding indolizines in excellent yields in a one-pot reaction.

IT 17281-78-6P 40624-43-9P 502762-20-1P
502762-21-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(microwave-mediated one-pot synthesis of indolizines via a three-component reaction)

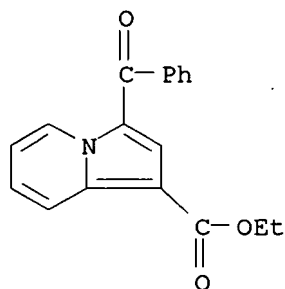
RN 17281-78-6 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



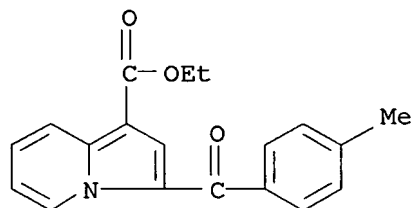
RN 40624-43-9 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-, ethyl ester (9CI) (CA INDEX NAME)



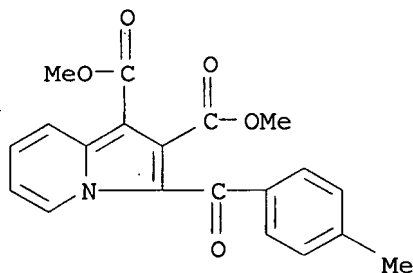
RN 502762-20-1 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-(4-methylbenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 502762-21-2 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-(4-methylbenzoyl)-, dimethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:911885 CAPLUS

DOCUMENT NUMBER: 138:161353

TITLE: Methyl 3-benzoyl-8-hydroxy-5-methoxyindolizine-1-carboxylate

AUTHOR(S): Usman, Anwar; Li, Yun; Zhang, Yan; Fun, Hoong Kun; Xu, Jian Hua

CORPORATE SOURCE: School of Physics, X-ray Crystallography Unit, Universiti Sains Malaysia, Penang, 11800 USM, Malay.

SOURCE: Acta Crystallographica, Section E: Structure Reports Online (2002), E58(12), o1427-o1429
CODEN: ACSEBH; ISSN: 1600-5368
URL: <http://journals.iucr.org/e/issues/2002/12/00/wn6127/index.html>

PUBLISHER: International Union of Crystallography

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

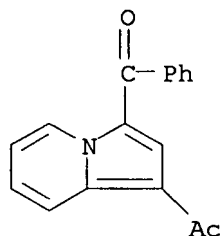
AB In the title compound, C₁₈H₁₅NO₅, the methoxycarbonyl substituent, disregarding H atoms, is almost coplanar with the indolizine ring system in each of the two crystallog. independent mols. in the asym. unit. In the crystal structure, symmetry-related mols. form mol. dimers, held together by two C-H...O H bonds, and are interconnected into a three-dimensional network by another C-H...O H bond. Crystallog. data are given.

IT 51386-41-5, 1-Acetyl-3-benzoylindolizine

RL: RCT (Reactant); RACT (Reactant or reagent)
(photooxygenation of)

RN 51386-41-5 CAPLUS

CN Ethanone, 1-(3-benzoyl-1-indoliziny)- (9CI) (CA INDEX NAME)



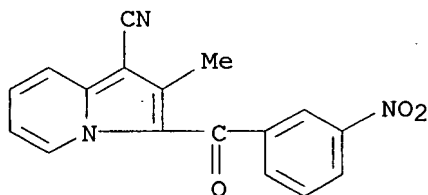
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:903424 CAPLUS

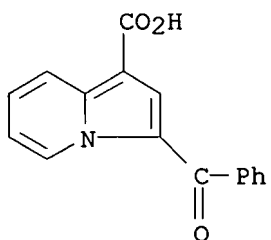
DOCUMENT NUMBER: 138:255048

TITLE: Isocyanatophosphoric acid dichloride: a novel reagent for the introduction of a cyano group into the molecules of electron-rich heterocycles and enamines
 AUTHOR(S): Smaliy, Radomir V.; Chaikovskaya, Aleksandra A.; Pinchuk, Aleksandr M.; Tolmachev, Andrei A.
 CORPORATE SOURCE: Institute of Organic Chemistry, National Academy of Sciences of the Ukraine, Kiev, 02094/94, Ukraine
 SOURCE: Synthesis (2002), (16), 2416-2420
 CODEN: SYNTBF; ISSN: 0039-7881
 PUBLISHER: Georg Thieme Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 138:255048
 AB A new synthetic method is developed which enables a direct one-step introduction of a cyano group into electron-rich heterocyclic systems of the indole, pyrrole, and indolizine series, and also to enamines using isocyanatophosphoryl dichloride. Thus, reaction of OCNP(O)Cl₂ with N-methylpyrrole in ClCH₂CH₂Cl for 1h at 20° gave 64% 1-methyl-1H-pyrrole-2-carbonitrile.
 IT 502925-11-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (isocyanatophosphoric acid dichloride as novel reagent for introduction of cyano group into electron-rich heterocycles and enamines)
 RN 502925-11-3 CAPLUS
 CN 1-Indolizinecarbonitrile, 2-methyl-3-(3-nitrobenzoyl)- (9CI) (CA INDEX NAME)

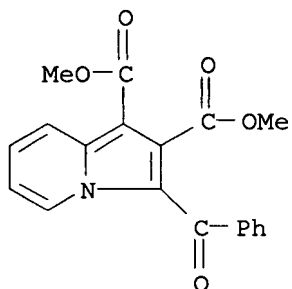


REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

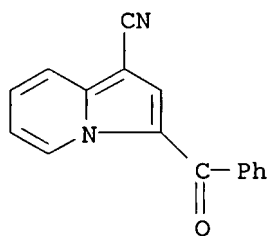
L4 ANSWER 14 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:861066 CAPLUS
 DOCUMENT NUMBER: 139:117275
 TITLE: Product class 16: indolizines
 AUTHOR(S): Shipman, M.
 CORPORATE SOURCE: School of Chemistry, University of Exeter, Exeter, EX4 4QD, UK
 SOURCE: Science of Synthesis (2001), 10, 745-787
 CODEN: SSCYJ9
 PUBLISHER: Georg Thieme Verlag
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English
 AB A review describes some of the most useful methods for the synthesis of indolizines. The methods described are categorized as synthesis by ring-closure reactions; ring transformation; and substituent modification.
 IT 25627-87-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of indolizines and synthetic modification of substituents)
 RN 25627-87-6 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



IT 17281-78-6P 25627-81-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of indolizines via ring-closure reactions and ring
 transformations)
 RN 17281-78-6 CAPLUS
 CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI,
 9CI) (CA INDEX NAME)



RN 25627-81-0 CAPLUS
 CN 1-Indolizinecarbonitrile, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 176 THERE ARE 176 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 15 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:482859 CAPLUS
 DOCUMENT NUMBER: 135:282674
 TITLE: 4-(Benzoylindoliziny)butyric acids; novel
 nonsteroidal inhibitors of steroid 5 α -reductase.
 III
 AUTHOR(S): Sawada, Kozo; Okada, Satoshi; Kuroda, Akio; Watanabe,
 Shinya; Sawada, Yuki; Tanaka, Hirokazu
 CORPORATE SOURCE: Exploratory Research Laboratories, Fujisawa
 Pharmaceutical Co., Ltd., Tsukuba, 300-2698, Japan
 SOURCE: Chemical & Pharmaceutical Bulletin (2001), 49(7),
 799-813
 CODEN: CPBTAL; ISSN: 0009-2363

PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:282674

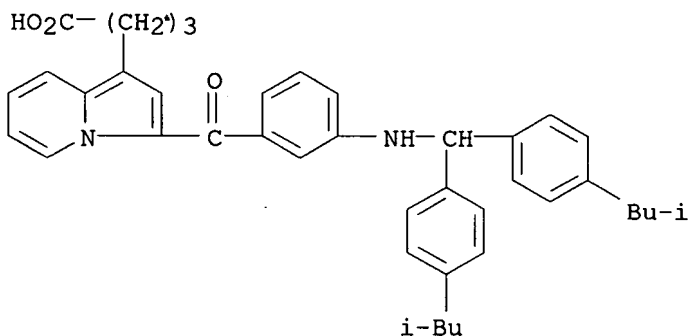
AB A novel series of indolizinebutyric acids with various benzoyl substituents was synthesized to develop nonsteroidal inhibitors of steroid 5 α -reductase, and the structure-activity relationships in this series were studied. The authors previously reported the structure-activity relationships in a series of indolebutyric acids as well as the discovery of the novel nonsteroidal 5 α -reductase inhibitor, FK143. The authors have now made other modifications to this compound to improve in vivo inhibitory activity. By altering the heterocyclic nucleus and changing the benzoyl substituent the authors have succeeded in identifying the strongly active compound, FK687, (S)-4-[1-[4-[[1-(4-isobutylphenyl)butyl]oxy]benzoyl]indolizin-3-yl]butyric acid, which displays strong in vitro inhibitory activity against the human enzyme and in vivo inhibitory activity against the castrated young rat model. This compound should be a useful agent for the treatment of benign prostatic hyperplasia.

IT 365280-19-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of (benzoylindoliziny)butyric acids as novel nonsteroidal inhibitors of steroid 5 α -reductase in relation to structure and treatment of benign prostatic hyperplasia)

RN 365280-19-9 CAPLUS

CN 1-Indolizinebutanoic acid, 3-[3-[[bis[4-(2-methylpropyl)phenyl]methyl]amino]benzoyl]- (9CI) (CA INDEX NAME)

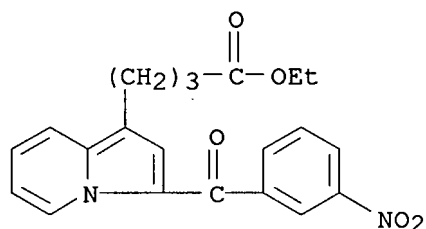


IT 146922-53-4P 146922-61-4P 146923-35-5P

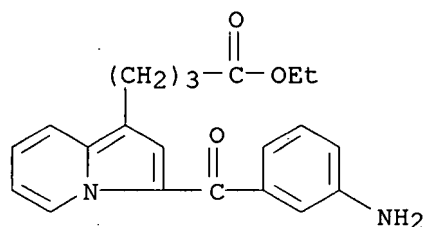
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of (benzoylindoliziny)butyric acids as novel nonsteroidal inhibitors of steroid 5 α -reductase in relation to structure and treatment of benign prostatic hyperplasia)

RN 146922-53-4 CAPLUS

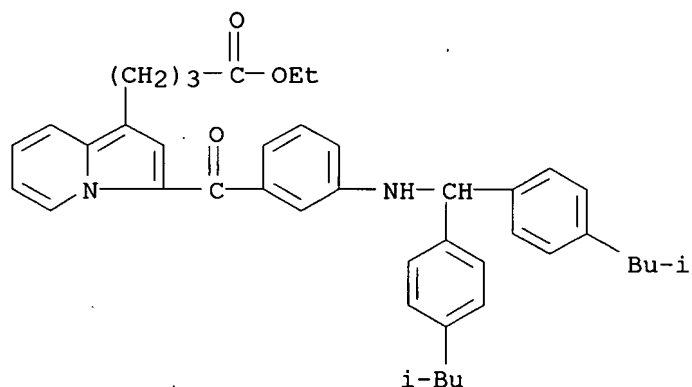
CN 1-Indolizinebutanoic acid, 3-(3-nitrobenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 146922-61-4 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-(3-aminobenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



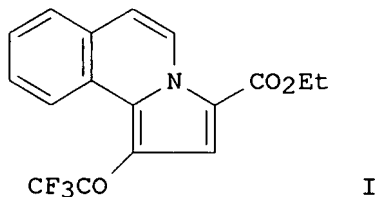
RN 146923-35-5 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-[3-[[bis[4-(2-methylpropyl)phenyl]methyl]amino]benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:801102 CAPLUS
 DOCUMENT NUMBER: 132:122502
 TITLE: Preparation of 1-(trifluoroacetyl)indolizines and their derivatives via cycloaddition of pyridinium N-ylides with 4-ethoxy-1,1,1-trifluorobut-3-en-2-one
 AUTHOR(S): Zhu, Shi-zheng; Qin, Chao-yue; Wang, Yan-Li; Chu, Qian-li
 CORPORATE SOURCE: Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, 200032, Peop. Rep. China
 SOURCE: Journal of Fluorine Chemistry (1999), 99(2), 183-187
 CODEN: JFLCAR; ISSN: 0022-1139

PUBLISHER: Elsevier Science S.A.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 132:122502
 GI

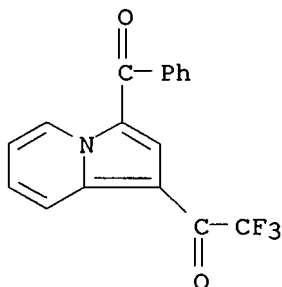


AB Under basic reaction conditions pyridinium or isoquinolinium N-ylides (C₅H₅N+CH₂Y Br⁻ or C₉H₇N+CH₂Y Br⁻; Y = CO₂Me, CO₂Et, CN, PhCO) reacted readily with 4-ethoxy-1,1,1-trifluorobut-3-en-2-one to give 1-(trifluoroacetyl)indolizines or -pyrrolo[1,2-a]isoquinolines. The mol. structure of product I was determined

IT 256234-53-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (cycloaddn. of pyridinium or isoquinolinium N-ylides with ethoxytrifluorobutenone)

RN 256234-53-4 CAPLUS

CN Ethanone, 1-(3-benzoyl-1-indoliziny)-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:563227 CAPLUS

DOCUMENT NUMBER: 131:310616

TITLE: Novel 1,3-dipolar cycloaddition of quinoxalinium N-ylide to alkene promoted by MnO₂: a new approach to synthesis of pyrrolo[1,2-a]-quinoxalines

AUTHOR(S): Zhou, Jian; Zhang, Lande; Hu, Yuefei; Hu, Hongwen

CORPORATE SOURCE: Department of Chemistry, Nanjing University, Nanjing, 210093, Peop. Rep. China

SOURCE: Journal of Chemical Research, Synopses (1999), (9), 552-553
 CODEN: JRPSDC; ISSN: 0308-2342

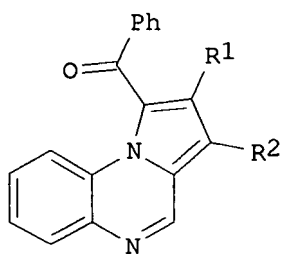
PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 131:310616

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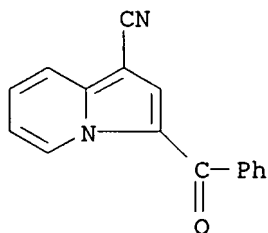
I

AB A novel approach to synthesize pyrrolo[1,2-a]quinoxalines I [R1 = H, CO2Et, R2 = cyano, CO2Me, COMe, CO2Et; R1R2 = CO(NPh)CO] was developed successfully by 1,3-dipolar cycloaddn. of a quinoxalinium N-ylide to alkenes R1CH:CHR2 in the presence of MnO2 under very convenient conditions and with moderate yields (40-52%).

IT 25627-81-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of pyrroloquinoxalines by dipolar cycloaddn. of alkenes to quinoxalinium N-ylide)

RN 25627-81-0 CAPLUS

CN 1-Indolizinecarbonitrile, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:327734 CAPLUS

DOCUMENT NUMBER: 131:73717

TITLE: C-acylation of electron-rich heterocyclic compounds with Kirsanov isocyanate

AUTHOR(S): Tolmachev, Andrei A.; Chaikovskaya, Aleksandra A.; Smaliy, Radomir V.; Kudrya, Tamara N.; Yurchenko, Aleksandr A.; Pinchuk, Aleksandr M.

CORPORATE SOURCE: Institute of Organic Chemistry, National Academy of Sciences of Ukraine, Kiev, 253660, Ukraine

SOURCE: Heteroatom Chemistry (1999), 10(4), 343-348
 CODEN: HETCE8; ISSN: 1042-7163

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 131:73717

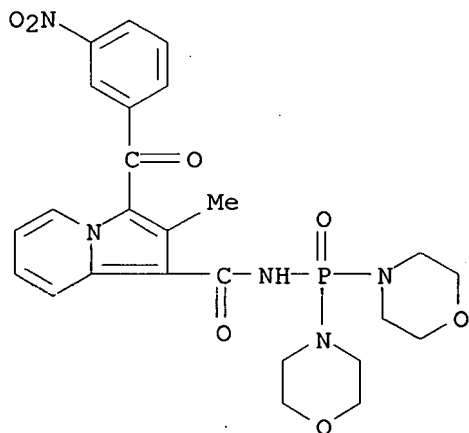
AB Pyrroles, indoles, indolizines, and 2-methylfuran are vigorously C-acylated with isocyanatophosphoryl dichloride. E.g., N-methylpyrrole reacts with Cl2P(O)NCO in octane at room temperature to give a 90% yield of 1-methylpyrrole-2-carboxamidophosphoryl dichloride. The resulting heteroaryl-substituted isocyanatophosphoryl dichlorides provide a convenient access to a variety of products.

IT 228566-54-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 228566-54-9 CAPLUS

CN 1-Indolizinecarboxamide, N-(di-4-morpholinylphosphinyl)-2-methyl-3-(3-nitrobenzoyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:281626 CAPLUS

DOCUMENT NUMBER: 130:337991

TITLE: Facile one-step synthesis of 1-acylindolizines by the reaction of pyridinium salts with Mannich bases in the presence of TPCD

AUTHOR(S): Wang, Bing-Xiang; Hu, Jia-Xin; Hu, Yue-Fei; Hu, Hong-Wen

CORPORATE SOURCE: Dep. Chem., Nanjing Univ., Nanjing, 210093, Peop. Rep. China

SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1999), 20(3), 418-420
CODEN: KTHPDM; ISSN: 0251-0790

PUBLISHER: Gaodeng Jiaoyu Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

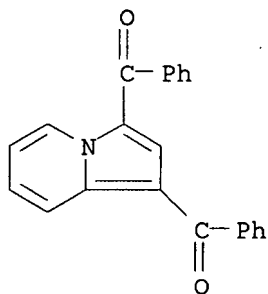
AB A facile one-step method is presented for the synthesis of 1-acylindolizines in moderate yield by the reaction of pyridinium salts with Mannich bases in the presence of NaHCO₃ and a mild oxidizing agent, tetrakispyridine cobalt dichromate (TPCD). For example, 1-acetyl-3-benzoylindolizine was prepared in 36% yield from phenacylpyridinium bromide and 4-dimethylamino-2-butanone hydrochloride.

IT 17281-91-3P 51386-41-5P

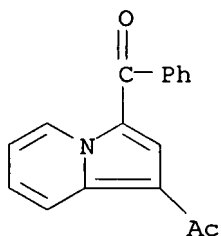
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of 1-acylindolizines by reaction of pyridinium salts with Mannich bases in presence of TPCD)

RN 17281-91-3 CAPLUS

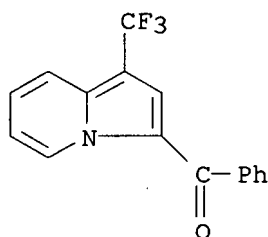
CN Methanone, 1,3-indolizinediylbis[phenyl]- (9CI) (CA INDEX NAME)



RN 51386-41-5 CAPLUS
 CN Ethanone, 1-(3-benzoyl-1-indoliziny)- (9CI) (CA INDEX NAME)



L4 ANSWER 20 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:43858 CAPLUS
 DOCUMENT NUMBER: 130:139271
 TITLE: A one-step approach to 1-(fluoroalkyl)indolizine derivatives
 AUTHOR(S): Zhang, Xue-chun; Huang, Wei-yuan
 CORPORATE SOURCE: Laboratory Organofluorine Chemistry, Shanghai
 Institute Organic Chemistry, Chinese Academy Sciences,
 Shanghai, 200032, Peop. Rep. China
 SOURCE: Synthesis (1999), (1), 51-54
 CODEN: SYNTBF; ISSN: 0039-7881
 PUBLISHER: Georg Thieme Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 130:139271
 AB A facile 1-step method is presented for the synthesis of
 1-(fluoroalkyl)-substituted indolizines in moderate to good yields by
 reactions of pyridinium, 4-methylpyridinium isoquinolinium, and
 pyridazinium ylides with CF₃CH₂Br and Cl(CF₂)_nCH₂CH₃ (n = 2, 4, 6),
 resp., in the presence of base.
 IT 135339-04-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of (fluoroalkyl)indolizines)
 RN 135339-04-7 CAPLUS
 CN Methanone, phenyl[1-(trifluoromethyl)-3-indoliziny]- (9CI) (CA INDEX
 NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:547782 CAPLUS

DOCUMENT NUMBER: 129:290034

TITLE: Preparation of indolizine by intramolecular 1,5-dipolar cycloaddition of pyridinium N-allylides

AUTHOR(S): Zhou, Jian; Hu, Yue-Fei; Hu, Hong-Wen

CORPORATE SOURCE: Department of Chemistry, Nanjing University, Nanjing, 210093, Peop. Rep. China

SOURCE: Chemical Research in Chinese Universities (1998), 14(2), 213-214

CODEN: CRCUED; ISSN: 1000-9213

PUBLISHER: Higher Education Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Pyridinium or isoquinolinium allylides, prepared by treatment of 1-chloro-1-buten-3-one and the corresponding pyridinium or isoquinolinium salts with Et₃N at room temperature, were heated in toluene 3-5 h to give 34-55%

indolizines and benzo[g]indolizines.

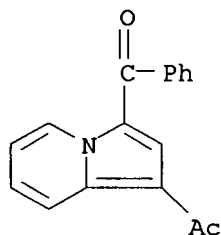
IT 51386-41-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of indolizine by intramol. 1,5-dipolar cycloaddn. of pyridinium N-allylides)

RN 51386-41-5 CAPLUS

CN Ethanone, 1-(3-benzoyl-1-indoliziny)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:121449 CAPLUS

DOCUMENT NUMBER: 128:217319

TITLE: A convenient synthesis of polyfluoroalkyl-substituted pyrazolo[1,5-a]pyridine, pyrrolo[1,2-b]pyridazine and indolizine derivatives

AUTHOR(S): Zhang, Xue-chun; Huang, Wei-yuan

CORPORATE SOURCE: 354 Fenglin Lu, Shanghai Institute of Organic Chemistry, Laboratory of Organofluorine Chemistry,

Chinese Academy of Sciences, Shanghai, 200032, Peop.
Rep. China

SOURCE:

Journal of Fluorine Chemistry (1998), 87(1), 57-64

CODEN: JFLCAR; ISSN: 0022-1139

PUBLISHER:

Elsevier Science S.A.

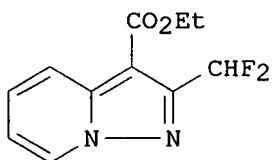
DOCUMENT TYPE:

Journal

LANGUAGE:

English

GI



AB In the presence of base, Et 2,2-dihydropoly(per)fluoroalkanoates reacted with N-aminopyridinium iodide, N-amino- γ -picolinium iodide or N-aminoisoquinolinium iodide, N-phenacylpyridazinium, N-phenacylpyridinium, and N-phenacylisoquinolinium bromides in DMF to give poly(per)fluoroalkyl-substituted pyrazolo[1,5-a] pyridine, e.g., I, pyrrolo[1,2-a]pyridazine, and indolizine derivs.

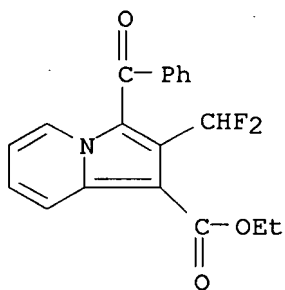
IT 204136-68-5P 204136-69-6P 204136-70-9P

204136-71-0P 204136-79-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

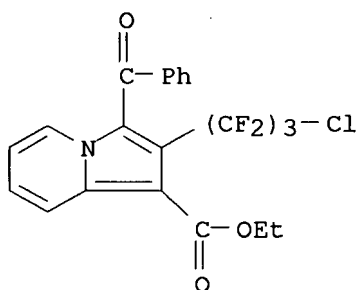
RN 204136-68-5 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-2-(difluoromethyl)-, ethyl ester
(9CI) (CA INDEX NAME)

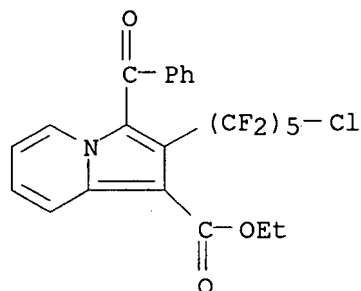


RN 204136-69-6 CAPLUS

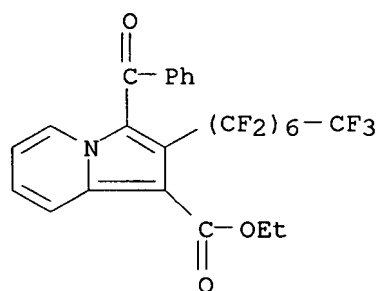
CN 1-Indolizinecarboxylic acid, 3-benzoyl-2-(3-chloro-1,1,2,2,3,3-hexafluoropropyl)-, ethyl ester (9CI) (CA INDEX NAME)



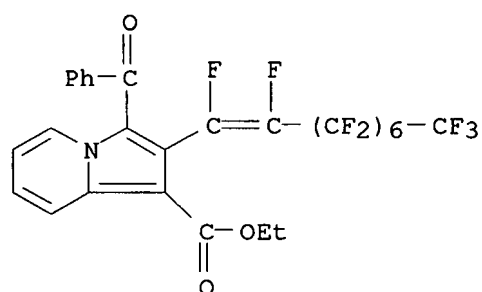
RN 204136-70-9 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl-2-(5-chloro-1,1,2,2,3,3,4,4,5,5-decafluoropentyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 204136-71-0 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl-2-(pentadecafluoroheptyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 204136-79-8 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl-2-(1,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluoro-1-nonenyl)-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:748900 CAPLUS

DOCUMENT NUMBER: 128:61394

TITLE: Hetarenes with a bridge nitrogen atom. 5. Synthesis of the indolizine ring by transformation of the oxazolo[3,2-a]pyridinium cation when treated with acetylacetone

AUTHOR(S): Babaev, E. V.; Bozhenko, S. V.

CORPORATE SOURCE: M. V. Lomonosov Moscow State University, Moscow,

SOURCE:

119899, Russia
Chemistry of Heterocyclic Compounds (New
York) (Translation of Khimiya Geterotsiklicheskikh
Soedinenii) (1997), 33(1), 125-126
CODEN: CHCCAL; ISSN: 0009-3122

PUBLISHER:

Consultants Bureau

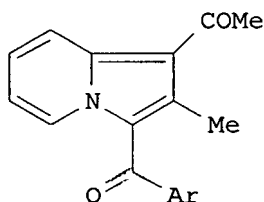
DOCUMENT TYPE:

Journal

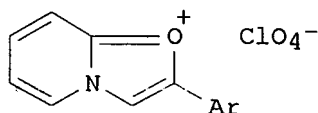
LANGUAGE:

English

GI



I



II

AB Indolizines I (Ar = Ph, 4-O₂NC₆H₄) were prepared by the reaction of
Na⁺-CH(COMe)₂ with oxazolopyridinium perchlorates II.

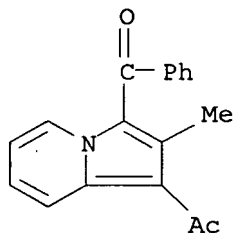
IT 200355-81-3P 200355-82-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of indolizines by cyclocondensation of acetylacetone with
oxazolopyridinium perchlorates)

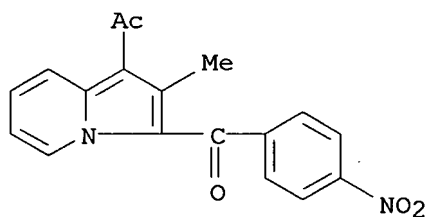
RN 200355-81-3 CAPLUS

CN Ethanone, 1-(3-benzoyl-2-methyl-1-indolizinyl)- (9CI) (CA INDEX NAME)



RN 200355-82-4 CAPLUS

CN Ethanone, 1-[2-methyl-3-(4-nitrobenzoyl)-1-indolizinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 24 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:246472 CAPLUS

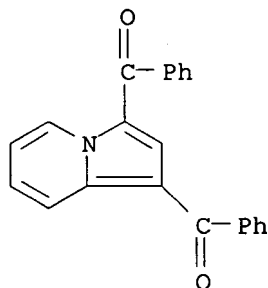
DOCUMENT NUMBER: 126:293244

TITLE:

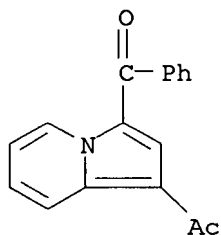
A convenient synthesis of 1-acylindolizines by

1,3-dipolar cycloaddition reactions of pyridinium ylides and α,β -unsaturated aldehydes or ketones in the presence of tetrapyridinecobalt dichromate

AUTHOR(S): Zhang, Xuechun; Cao, Weili; Wei, Xudong; Hu, Hongwen
CORPORATE SOURCE: Department of Chemistry, Nanjing University, Nanjing, 210093, Peop. Rep. China
SOURCE: Synthetic Communications (1997), 27(8), 1395-1403
CODEN: SYNCAV; ISSN: 0039-7911
PUBLISHER: Dekker
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the presence of tetrapyridinecobalt dichromate (CoPy₄(HCrO₄)₂), pyridinium ylides and α,β -unsatd. aldehydes or ketones undergo 1,3-dipolar cycloaddn. reactions followed by in situ aromatization to give 1-acyl substituted indolizines in moderate to good yields.
IT 17281-91-3P 51386-41-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 17281-91-3 CAPLUS
CN Methanone, 1,3-indolizinediylbis[phenyl- (9CI) (CA INDEX NAME)



RN 51386-41-5 CAPLUS
CN Ethanone, 1-(3-benzoyl-1-indoliziny)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 25 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:239019 CAPLUS

DOCUMENT NUMBER: 126:330534

TITLE: Indolizines. 4. The synthesis of new 3-vinylindolizines

AUTHOR(S): De Bue, G.; Nasielski, J.

CORPORATE SOURCE: Service de Chimie Organique CP 160/06, Universite Libre de Bruxelles, Brussels, 1050, Belg.

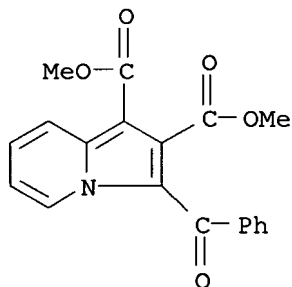
SOURCE: Bulletin des Societes Chimiques Belges (1997), 106(2), 97-108

CODEN: BSCBAG; ISSN: 0037-9646

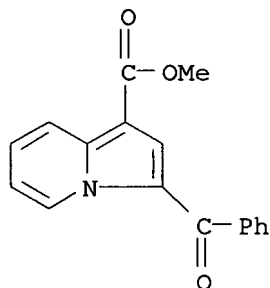
PUBLISHER: Bulletin des Societes Chimiques Belges
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 126:330534

AB New 3-vinylindolizines have been synthesized by two methods. The first strategy calls for the Wittig olefination of 3-acylindolizines with methylenetriphenylphosphorane or methoxymethylenetriphenylphosphorane. The best yields are obtained when the ylide is formed at room temperature and the condensation in refluxing THF. The required 3-acylindolizines were obtained by direct acylation of indolizines or by 1,3-dipolar cycloaddns. to acylmethylpyridinium ylides. The following 3-isopropenylindolizines were made with good yields: unsubstituted (85%), 2-Me (98%), 2-C₆H₅ (95%), 1-COOMe (98%), 1-COOMe-2-C₆H₅ (91%), 1,2-di-COOMe (58%). Also synthesized are the following 3- α -styrylindolizines: 2-C₆H₅ (99%), 1-COOMe (93%), 1-COOMe-2-C₆H₅ (87%), 1,2-di-COOMe (66%). 3-(α -Methyl- β -methoxyvinyl)indolizines E (40%) and Z (40%) were also obtained. The second strategy involves the 1,3-dipolar cycloaddn. of dipolarophiles to allylpyridinium ylides. The following new 3-vinylindolizines have been synthesized: 1-carbomethoxy-3-vinylindolizine (21%), 1,2-dicarbomethoxy-3-vinylindolizine (16%), 1-carbomethoxy-3- β -styrylindolizine (43%), 3- β -styrylindolizine (17%), and 1-carbomethoxy-3-(β -carbomethoxy)vinylindolizine (31%).

IT 17281-78-6P 17281-79-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent).
(preparation of vinylindolizines)
RN 17281-78-6 CAPLUS
CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 17281-79-7 CAPLUS
CN 1-Indolizinecarboxylic acid, 3-benzoyl-, methyl ester (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 26 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:136196 CAPLUS

DOCUMENT NUMBER: 126:251363

TITLE: A novel approach to the synthesis of
3-acyl-substituted indolizines. The synthesis of
3-(indolizin-2-yl)alanine-, and 4-(indolizin-
3-yl)homoalanine derivatives

AUTHOR(S): Jukic, Lucija; Bratusek, Urska; Skof, Marko; Svete,
Jurij; Stanovnik, Branko

CORPORATE SOURCE: Fac. Chem. Chem. Technol., Univ. Ljubljana, Ljubljana,
Slovenia

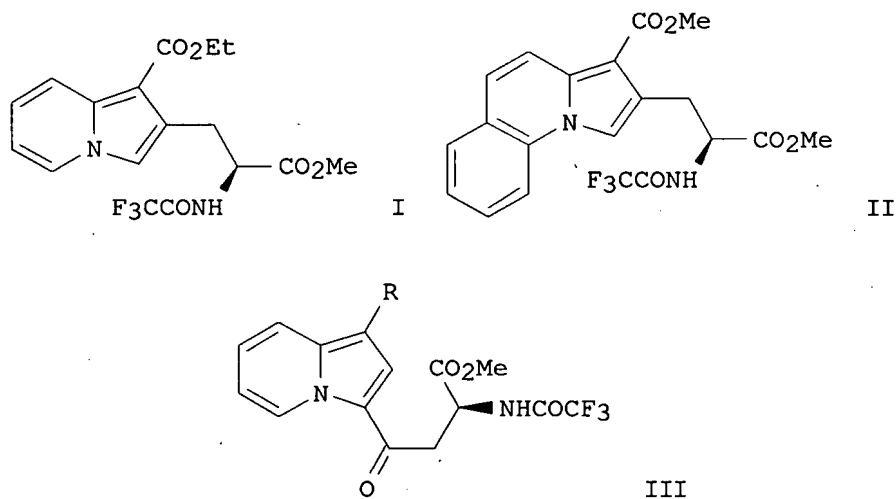
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1996),
(11/12), 1510-1514

CODEN: KGSSAQ; ISSN: 0132-6244

PUBLISHER: Latviiskii Institut Organicheskogo Sintez
Journal

LANGUAGE: English

GI



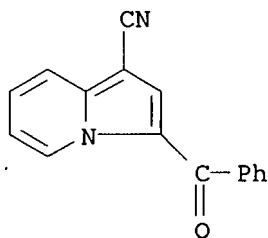
AB A novel approach to the synthesis of 3-acylindolizines and the transformation of some heterocycloacetic acids into tryptophan analogs are described. Reaction of Et 2-pyridinylacetate and Me 2-quinolinylacetate with N-trifluoroacetyl-5-bromo-4-oxonorvaline Me ester led to esters I and II, resp. Treatment of Et 2-pyridinylacetate and 2-pyridinylacetone nitrile, first with N,N-dimethylformamide di-Me acetal (DMFDMA) followed by reaction with phenacyl bromide, gave the corresponding 3-benzoylindolizines, while the reaction of Et 2-pyridinylacetate and 2-pyridinylacetone nitrile with DMFDMA, followed by treatment with (S)-N-trifluoroacetyl-5-bromo-4-oxonorvaline Me ester, gave III (R = CN, CO₂Et).

IT 25627-81-0P 40624-43-9P

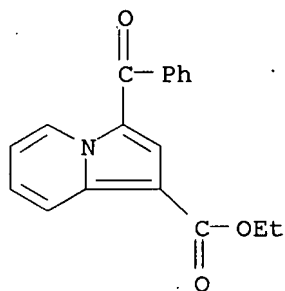
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of acyl-substituted indolizines and indolizine-containing alanines)

RN 25627-81-0 CAPLUS

CN 1-Indolizinecarbonitrile, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)

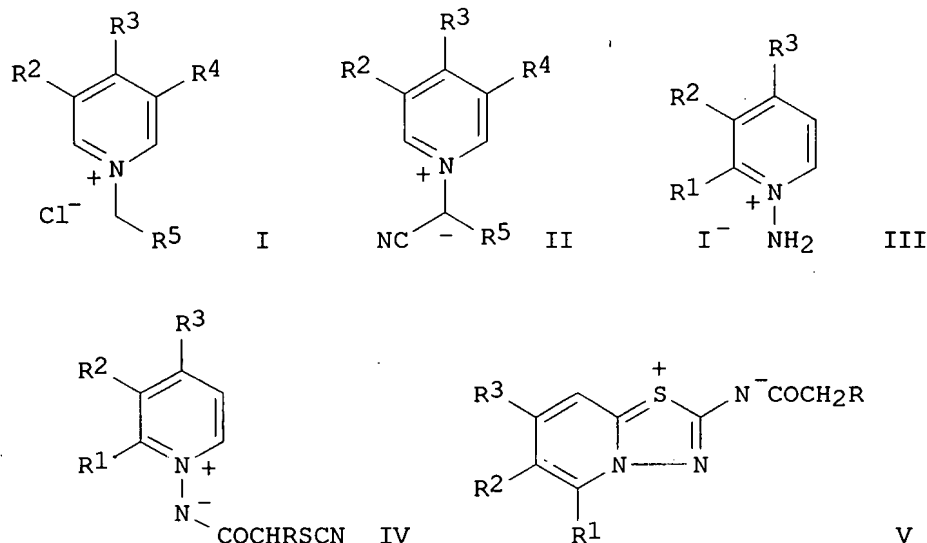


RN 40624-43-9 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:386641 CAPLUS
 DOCUMENT NUMBER: 125:195514
 TITLE: Preparation of new nitrogen-bridged heterocycles. 42. Synthesis and the reaction of pyridinium N-ylides using bifunctional ethyl thiocyanatoacetates
 AUTHOR(S): Kakehi, Akikazu; Ito, Suketaka; Hashimoto, Yasunobu
 CORPORATE SOURCE: Fac. Eng., Shinshu Univ., Nagano, 380, Japan
 SOURCE: Bulletin of the Chemical Society of Japan (1996), 69(6), 1769-1776
 CODEN: BCSJA8; ISSN: 0009-2673
 PUBLISHER: Nippon Kagakkai
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 125:195514
 GI



AB Various pyridinium (monosubstituted methylide)s I ($R_2, R_3, R_4 = H, Me$; $R_5 = cyano, CO_2Et, COMe, COPh$) were smoothly attached to the cyano group in Et thiocyanatoacetate or Et 2-thiocyanatopropionate to afford the corresponding pyridinium (substituted cyanomethylide)s II in low-to-moderate yields, while pyridinium (unsubstituted amidate)s III ($R_1, R_2, R_3 = H, Me$) reacted with the ester carbonyl group in the same reagents to give pyridinium (thiocyanatoacetato)- or (2-thiocyanatopropiono)amidates IV in considerable yields. The 1,3-dipolar cycloaddns. of some pyridinium (unsym. substituted cyanomethylide)s with di-Me acetylenedicarboxylate (DMAD) in various solvents afforded only di-Me 3-cyanoindolizine-1,2-dicarboxylate, except for a few examples. On the other hand, the treatment of pyridinium (thiocyanatoaceto)- or (2-thiocyanatopropiono)amidates with a strong base, such as potassium tert-butoxide, gave new bicyclic mesoionic compds., N-[2-(1,3,4-thiadiazolo[3,2-a]pyridinio)]acetamidate derivs. V, in moderate yields. The intermediacy of N-[1-(2-thiocyanatopyridinio)]acetamidates in the formation reactions of the latter compds. was also proven by independent syntheses.

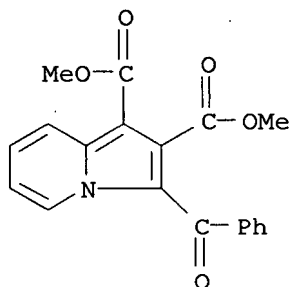
IT 17281-78-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and reactions of pyridinium N-ylides using bifunctional thiocyanatoacetates)

RN 17281-78-6 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 28 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:120326 CAPLUS
 DOCUMENT NUMBER: 124:260793
 TITLE: Benzopyrans: Part 34. Reactions of 3-substituted
 1-benzopyran-4-ones with N-phenacylpyridinium bromide
 AUTHOR(S): Ghosh, Chandra Kanta; Sahana, Sirin
 CORPORATE SOURCE: Dep. Biochem., Calcutta Univ., Calcutta, 700 019,
 India
 SOURCE: Indian Journal of Chemistry, Section B: Organic
 Chemistry Including Medicinal Chemistry (1996),
 35B(3), 203-6
 CODEN: IJSBDB; ISSN: 0376-4699
 PUBLISHER: Publications & Information Directorate, CSIR
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 124:260793
 GI

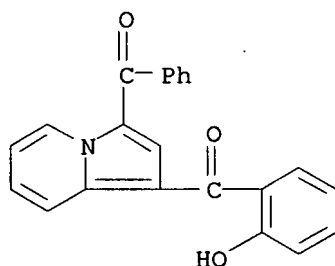
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB N-Phenacylpyridinium bromide reacted with benzopyranones I (R = H, Me, Cl, Br; X = CHO, CO₂H) in Me₂CO containing KCO₃ to give mixts. of the indolizines II and pyridinium salts III. Similar treatment of N-phenacylpyridinium bromide with I (R = H, Me; X = CN) gave the azirines IV, and reaction of N-phenacylpyridinium bromide with I (R = H, Me; X = CO₂Me) gave the zwitterions V. The pyridinium bromides III were converted into I by refluxing in pyridine.

IT 100421-20-3P 175353-64-7P 175353-65-8P
 175353-66-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (formation of benzoylindolizines and pyridinium salts by reaction of benzopyranones with phenacylpyridinium bromides)

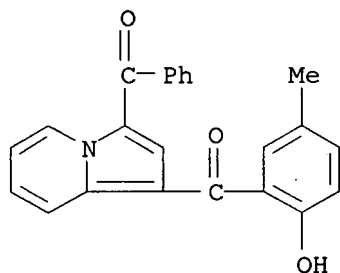
RN 100421-20-3 CAPLUS

CN Methanone, (3-benzoyl-1-indoliziny1)(2-hydroxyphenyl)- (9CI) (CA INDEX NAME)

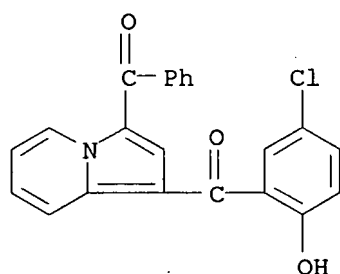


RN 175353-64-7 CAPLUS

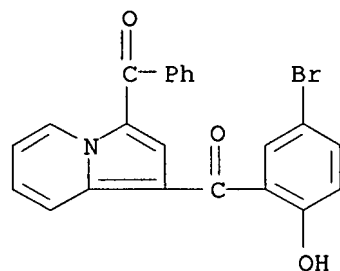
CN Methanone, (3-benzoyl-1-indoliziny1)(2-hydroxy-5-methylphenyl)- (9CI) (CA INDEX NAME)



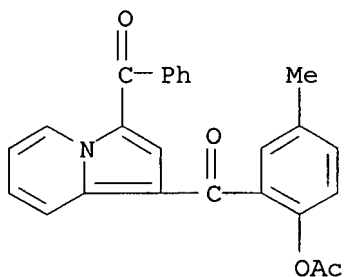
RN 175353-65-8 CAPLUS
 CN Methanone, (3-benzoyl-1-indoliziny) (5-chloro-2-hydroxyphenyl)- (9CI) (CA INDEX NAME)



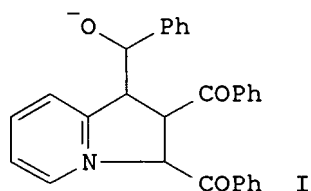
RN 175353-66-9 CAPLUS
 CN Methanone, (3-benzoyl-1-indoliziny) (5-bromo-2-hydroxyphenyl)- (9CI) (CA INDEX NAME)



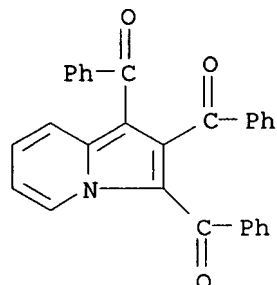
IT 176181-69-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 176181-69-4 CAPLUS
 CN Methanone, [1-[2-(acetyloxy)-5-methylbenzoyl]-3-indoliziny]phenyl- (9CI)
 (CA INDEX NAME)



L4 ANSWER 29 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1994:482938 CAPLUS
 DOCUMENT NUMBER: 121:82938
 TITLE: Crystal and molecular structure of
 1,2,3-tribenzoylindolizine
 AUTHOR(S): Wei, Xudong; Hu, Hongwen; Yu, Kaibei
 CORPORATE SOURCE: Dep. Chem., Nanjing Univ., Nanjing, 210008, Peop. Rep.
 China
 SOURCE: Jiegou Huaxue (1993), 12(1), 26-8
 CODEN: JHUADF; ISSN: 0254-5861
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 121:82938
 GI



AB Crystal and mol. structure of the title compound I was determined by single
 crystal X-ray diffraction anal. The indolizine ring is conjugated only
 with the 1-benzoyl group.
 IT 17281-90-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and crystal and mol. structure of)
 RN 17281-90-2 CAPLUS
 CN Methanone, 1,2,3-indolizinetriyltris[phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 30 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:270005 CAPLUS

DOCUMENT NUMBER: 120:270005

TITLE: A facile one-step synthesis of aromatic indolizines by 1,3-dipolar cycloaddition of pyridinium and related heteroaromatic ylides with alkenes in the presence of TPCD [Copy4(HCrO4)2]

AUTHOR(S): Wei, Xudong; Hu, Yuefei; Li, Tingsheng; Hu, Hongwen
CORPORATE SOURCE: Dep. Chem., Nanjing Univ., Nanjing, 210008, Peop. Rep. China

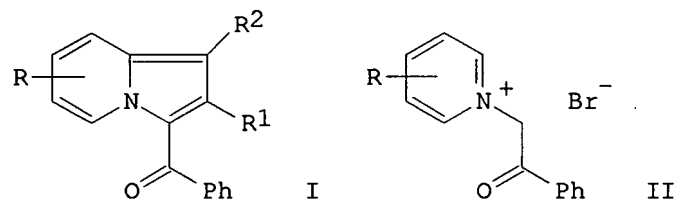
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1993), (20), 2487-9
CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 120:270005

GI



AB A facile and general one-step method is presented for the preparation of aromatic

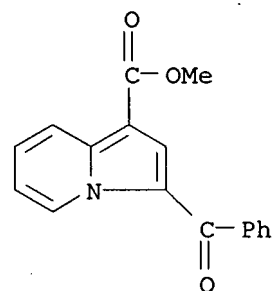
indolizine compds. I (R-R2 = alkyl, etc.) in moderate to high yields (53-99%) by reaction of the pyridinium N-ylides II (R = alkyl), quinolinium ylide or isoquinolinium ylide with various olefinic dipolarophiles, such as acrylonitrile, Me acrylate, acrylamide, di-Et maleate and Me crotonate, resp., in the presence of a new oxidant TPCD [Copy4(HCrO4)2, tetrapyridinecobalt(II) dichromate] at 90 °C for 2 h in DMF.

IT 17281-79-7P, Methyl 3-benzoylindolizine-1-carboxylate
25627-81-0P, 3-Benzoyl-1-cyanoindolizine 25627-86-5P
154224-58-5P 154224-59-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation from pyridinium ylide and alkene)

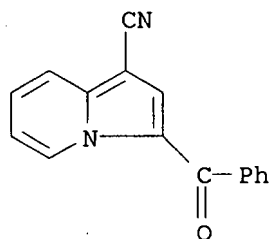
RN 17281-79-7 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-, methyl ester (8CI, 9CI) (CA INDEX NAME)

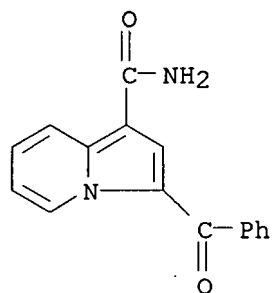


RN 25627-81-0 CAPLUS

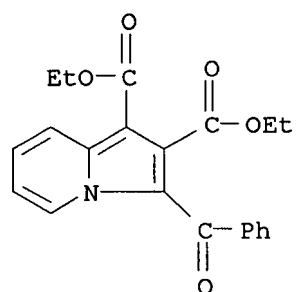
CN 1-Indolizinecarbonitrile, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



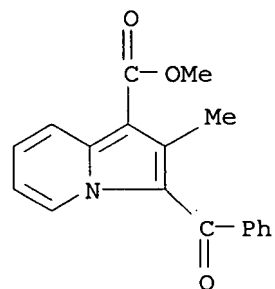
RN 25627-86-5 CAPLUS
 CN 1-Indolizinecarboxamide, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



RN 154224-58-5 CAPLUS
 CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, diethyl ester (9CI) (CA INDEX NAME)



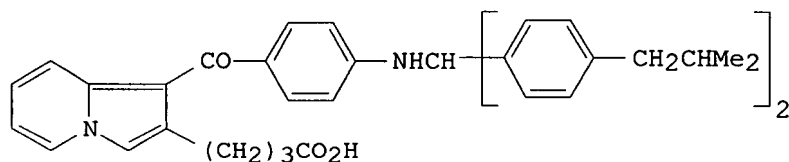
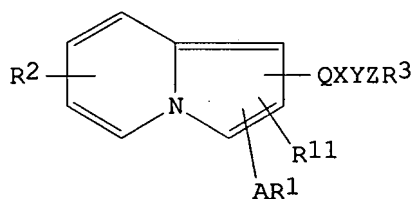
RN 154224-59-6 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl-2-methyl-, methyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 31 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:212886 CAPLUS
 DOCUMENT NUMBER: 118:212886
 TITLE: Preparation of indolizine derivatives as testosterone 5 α -reductase inhibitors
 INVENTOR(S): Okada, Satoshi; Sawada, Kozo; Kuroda, Akio; Watanabe, Shinya; Tanaka, Hirokazu
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 64 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 519353	A2	19921223	EP 1992-109968	19920613
EP 519353	A3	19930414		
EP 519353	B1	20000816		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, PT, SE				
ZA 9203958	A	19930224	ZA 1992-3958	19920529
US 5334716	A	19940802	US 1992-892453	19920602
AT 195521	T	20000915	AT 1992-109968	19920613
ES 2149160	T3	20001101	ES 1992-109968	19920613
PT 519353	T	20001229	PT 1992-109968	19920613
HU 61544	A2	19930128	HU 1992-1993	19920615
CA 2071375	A1	19921218	CA 1992-2071375	19920616
CA 2071375	C	20030211		
AU 9218270	A	19921224	AU 1992-18270	19920616
AU 656197	B2	19950127		
CN 1067893	A	19930113	CN 1992-104790	19920616
CN 1042226	B	19990224		
JP 05178856	A	19930720	JP 1992-157074	19920616
RU 2120942	C1	19981027	RU 1992-5011971	19920616
HU 9500394	A3	19950928	HU 1995-394	19950622
GR 3034429	T3	20001229	GR 2000-402118	20000918
PRIORITY APPLN. INFO.:			GB 1991-13027	A 19910617
			GB 1991-20764	A 19910930
			GB 1991-24345	A 19911115
			GB 1992-3809	A 19920221
OTHER SOURCE(S):		MARPAT 118:212886		
GI				



AB Title compds. I [R1 = HO2C, protected-HO2C; R2 = H, alkyl, halo; R3 =

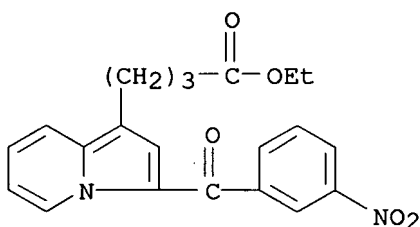
(substituted) aryl, aralkyl, -carbamoylalkyl, N-heterocyclyl, etc.; R11 = H, alkyl, A = (substituted) alkylene, alkenylene; Q = CO, alkylene; X = (substituted) Ph, furandiyl; Y = bond, alkylene; Z = alkylene, alkenylene, O, R6N wherein R6 = H, (substituted) alkyl, -aralkyl, protecting group] and their salts are prepared To Et 4-[1-(4-aminobenzoyl)indolizin-3-yl]butyrate (preparation given) in CH2Cl2 were added diisopropylethylamine and bis(4-isobutylphenyl)chlormethane in CH2Cl2 to give Et 4-[1-[4-[bis(4-isobutylphenyl)methylamino]benzoyl]indolizin-3-yl]butyrate to which was added 4N NaOH to give title compound II. II showed IC50 of 4.4 + 10-10 M against testosterone 5 α -reductase.

IT 146922-53-4P 146922-54-5P 146922-57-8P
 146922-58-9P 146922-61-4P 146922-62-5P
 146922-65-8P 146922-66-9P 146922-75-0P
 146922-76-1P 146922-79-4P 146922-80-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as intermediate for testosterone reductase inhibitors)

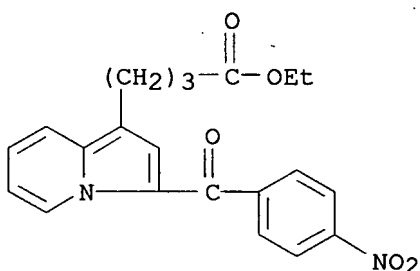
RN 146922-53-4 CAPLUS

CN 1-Indolizinebutanoic acid, 3-(3-nitrobenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



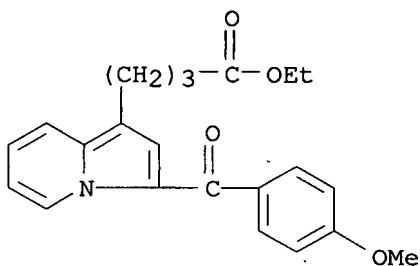
RN 146922-54-5 CAPLUS

CN 1-Indolizinebutanoic acid, 3-(4-nitrobenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)

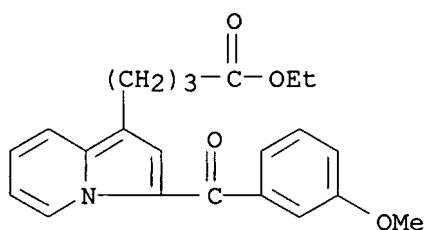


RN 146922-57-8 CAPLUS

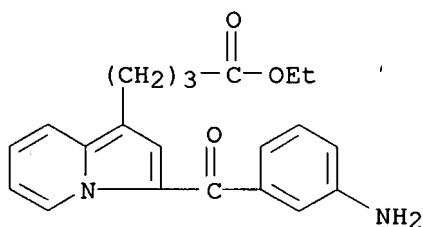
CN 1-Indolizinebutanoic acid, 3-(4-methoxybenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



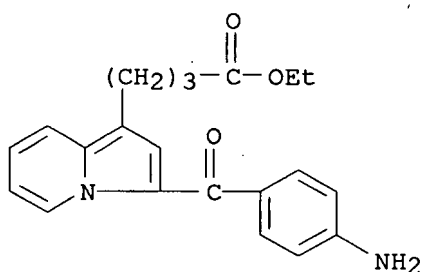
RN 146922-58-9 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-(3-methoxybenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



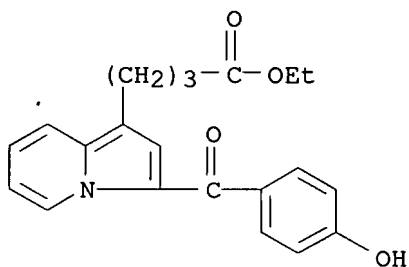
RN 146922-61-4 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-(3-aminobenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



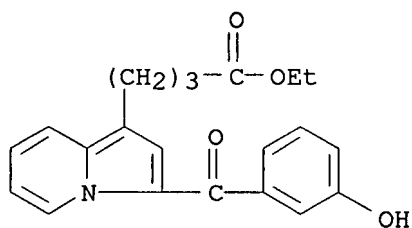
RN 146922-62-5 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-(4-aminobenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



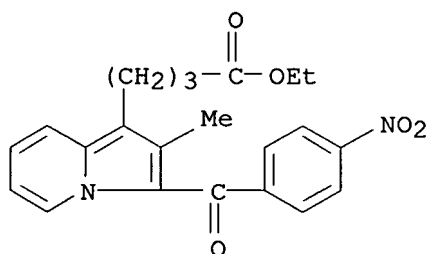
RN 146922-65-8 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-(4-hydroxybenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



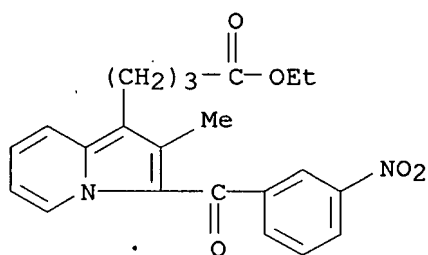
RN 146922-66-9 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-(3-hydroxybenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



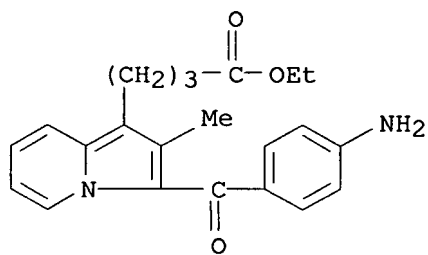
RN 146922-75-0 CAPLUS
 CN 1-Indolizinebutanoic acid, 2-methyl-3-(4-nitrobenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 146922-76-1 CAPLUS
 CN 1-Indolizinebutanoic acid, 2-methyl-3-(3-nitrobenzoyl)-, ethyl ester (9CI) (CA INDEX NAME)

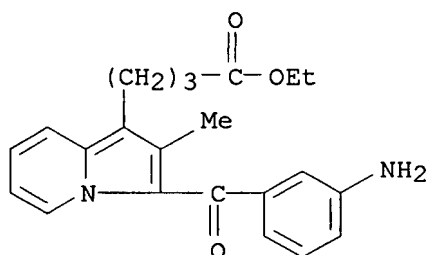


RN 146922-79-4 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-(4-aminobenzoyl)-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 146922-80-7 CAPLUS

CN 1-Indolizinebutanoic acid, 3-(3-aminobenzoyl)-2-methyl-, ethyl ester (9CI)
(CA INDEX NAME)

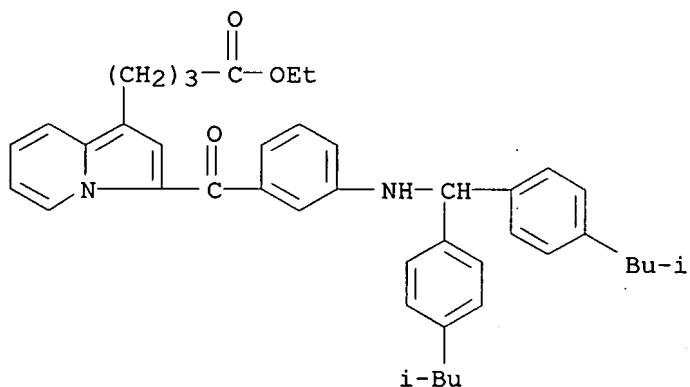


IT 146923-35-5P 146923-40-2P 146923-41-3P
146939-30-2P 146939-35-7P 146939-36-8P
146939-37-9P 146939-38-0P 146939-42-6P
146939-48-2P 146939-50-6P 146939-56-2P
146939-59-5P 146939-60-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as testosterone reductase inhibitor)

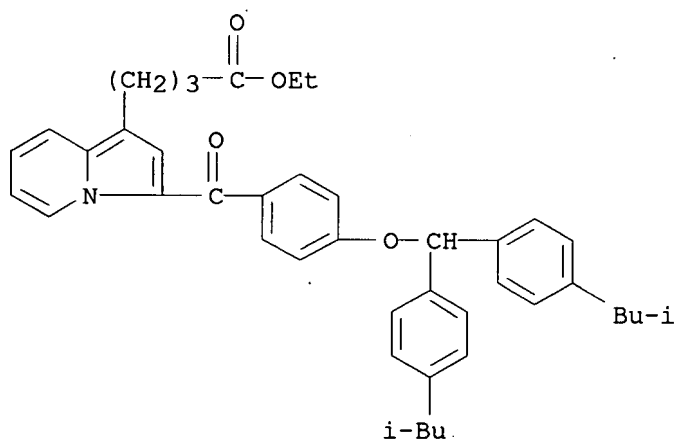
RN 146923-35-5 CAPLUS

CN 1-Indolizinebutanoic acid, 3-[3-[[bis[4-(2-methylpropyl)phenyl]methyl]amin
o]benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)



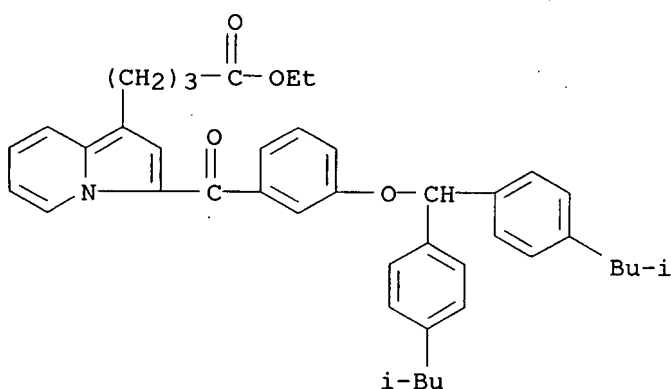
RN 146923-40-2 CAPLUS

CN 1-Indolizinebutanoic acid, 3-[4-[bis[4-(2-methylpropyl)phenyl]methoxy]benz
oyl]-, ethyl ester (9CI) (CA INDEX NAME)



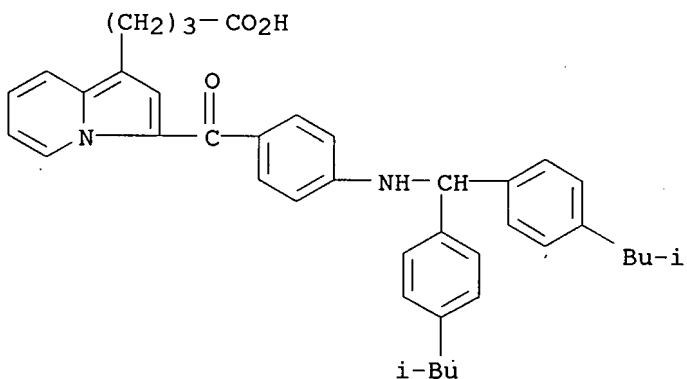
RN 146923-41-3 CAPLUS

CN 1-Indolizinebutanoic acid, 3-[3-[bis[4-(2-methylpropyl)phenyl]methoxy]benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)



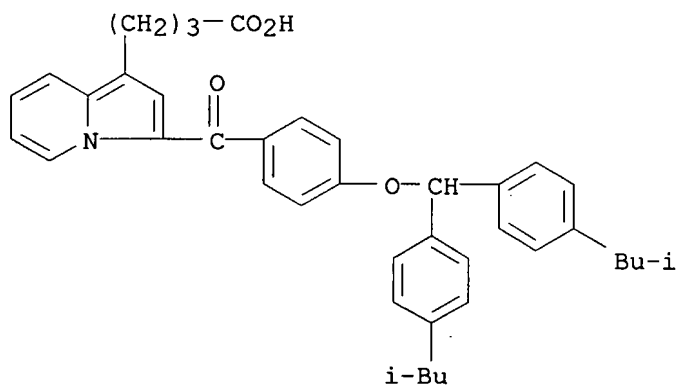
RN 146939-30-2 CAPLUS

CN 1-Indolizinebutanoic acid, 3-[4-[[bis[4-(2-methylpropyl)phenyl]methyl]amino]benzoyl]- (9CI) (CA INDEX NAME)

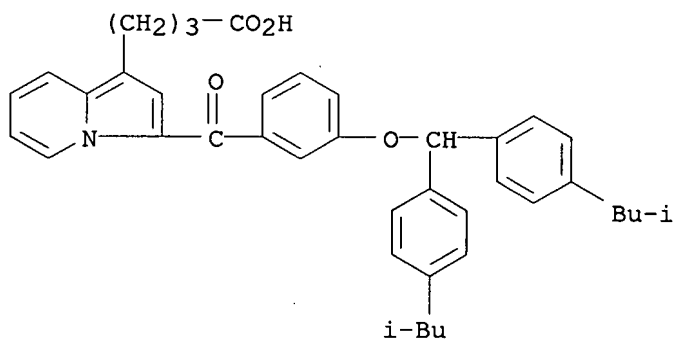


RN 146939-35-7 CAPLUS

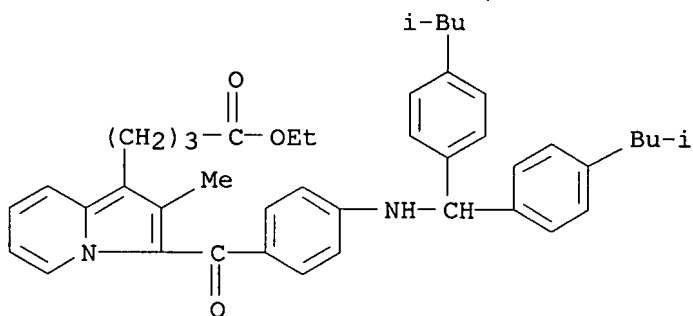
CN 1-Indolizinebutanoic acid, 3-[4-[bis[4-(2-methylpropyl)phenyl]methoxy]benzoyl]- (9CI) (CA INDEX NAME)



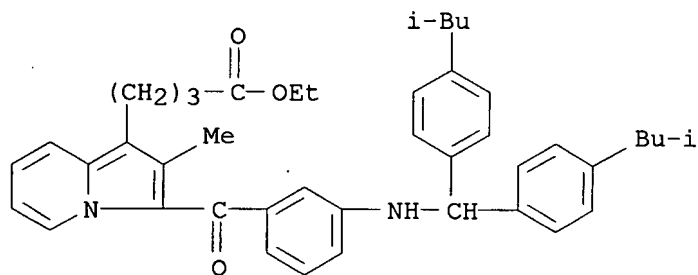
RN 146939-36-8 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-[3-[bis[4-(2-methylpropyl)phenyl]methoxy]benzoyl]- (9CI) (CA INDEX NAME)



RN 146939-37-9 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-[4-[[bis[4-(2-methylpropyl)phenyl]methyl]amino]benzoyl]-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)

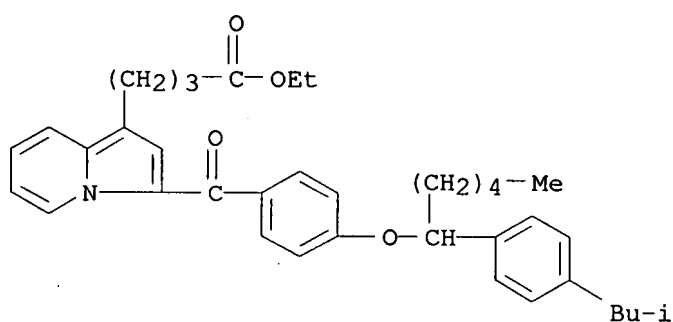


RN 146939-38-0 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-[3-[[bis[4-(2-methylpropyl)phenyl]methyl]amino]benzoyl]-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



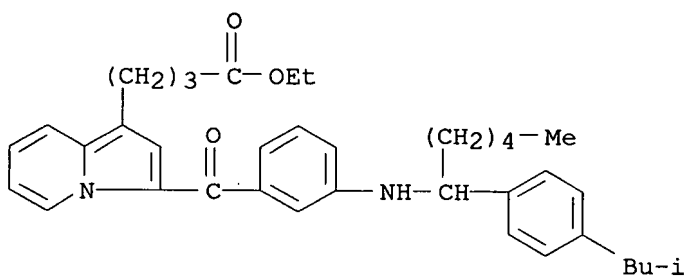
RN 146939-42-6 CAPLUS

CN 1-Indolizinebutanoic acid, 3-[4-[[1-[4-(2-methylpropyl)phenyl]hexyl]oxy]benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)



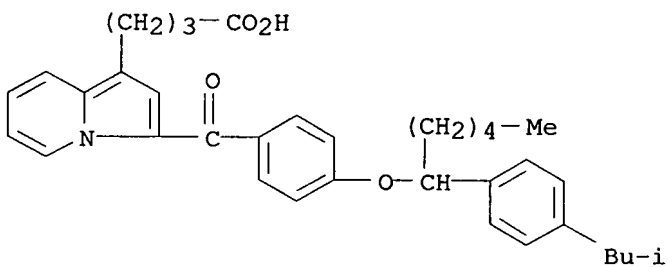
RN 146939-48-2 CAPLUS

CN 1-Indolizinebutanoic acid, 3-[3-[[1-[4-(2-methylpropyl)phenyl]hexyl]amino]benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)

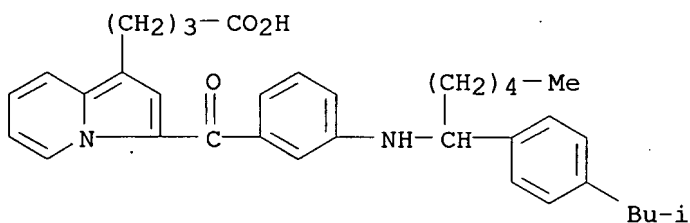


RN 146939-50-6 CAPLUS

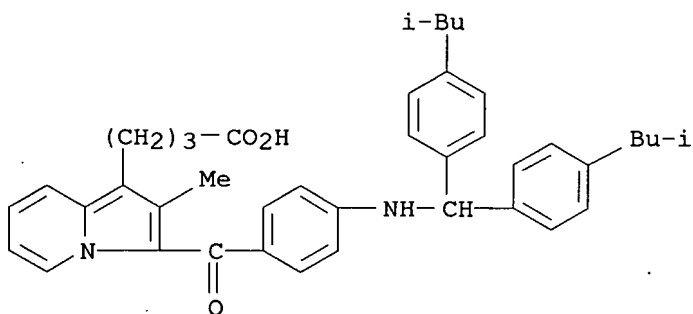
CN 1-Indolizinebutanoic acid, 3-[4-[[1-[4-(2-methylpropyl)phenyl]hexyl]oxy]benzoyl]- (9CI) (CA INDEX NAME)



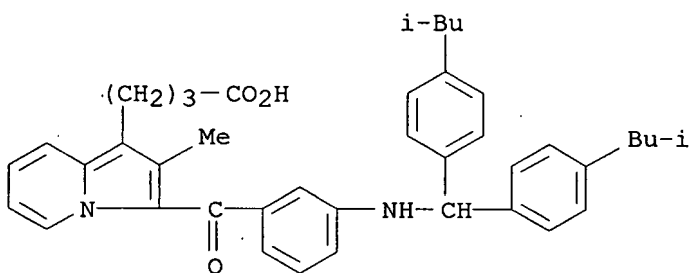
RN 146939-56-2 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-[3-[[1-[4-(2-methylpropyl)phenyl]hexyl]amino]benzoyl]- (9CI) (CA INDEX NAME)



RN 146939-59-5 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-[4-[[bis[4-(2-methylpropyl)phenyl]methyl]amino]benzoyl]-2-methyl- (9CI) (CA INDEX NAME)



RN 146939-60-8 CAPLUS
 CN 1-Indolizinebutanoic acid, 3-[3-[[bis[4-(2-methylpropyl)phenyl]methyl]amino]benzoyl]-2-methyl- (9CI) (CA INDEX NAME)



L4 ANSWER 32 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:591622 CAPLUS

DOCUMENT NUMBER: 117:191622

TITLE: A facile preparation of 1,2,3-triaroylindolizines

AUTHOR(S): Wei, Xudong; Hu, Yuefei; Li, Tingsheng; Hu, Hongwen

CORPORATE SOURCE: Dep. Chem., Nanjing Univ., Nanjing, 210008, Peop. Rep. China

SOURCE: Synthetic Communications (1992), 22(14), 2103-9

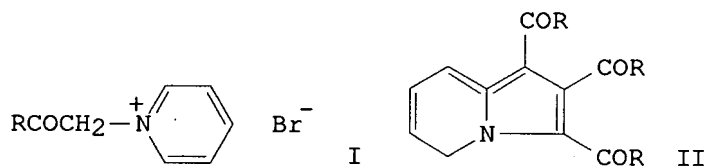
CODEN: SYNCAV; ISSN: 0039-7911

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S):
GI

CASREACT 117:191622



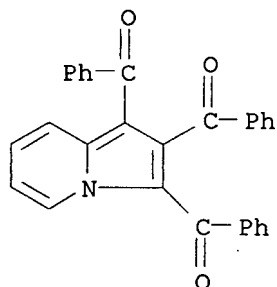
AB Fourteen 1,2,3-triaroylindolizines were prepared conveniently by oxidation of corresponding N-phenacyl pyridinium or substituted pyridinium bromides with a versatile oxidant TPCD [tetrakis-pyridino-cobalt (II) dichromate] in 12-42% yields. Thus, oxidation of pyridinium salts I (R = Ph, substituted Ph, 2-naphthyl) gave indolizines II.

IT 17281-90-2P 143718-60-9P 143718-62-1P
143718-66-5P 143718-67-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

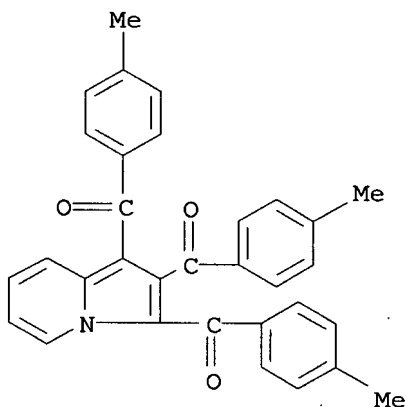
RN 17281-90-2 CAPLUS

CN Methanone, 1,2,3-indolizinetriyltris[phenyl]- (9CI) (CA INDEX NAME)



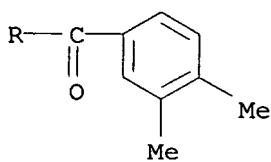
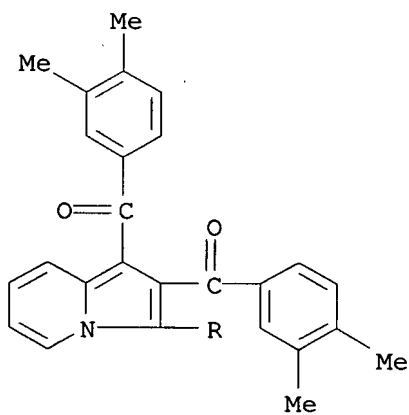
RN 143718-60-9 CAPLUS

CN Methanone, 1,2,3-indolizinetriyltris[(4-methylphenyl)]- (9CI) (CA INDEX NAME)

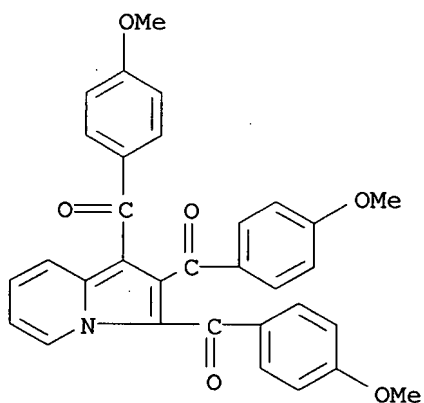


RN 143718-62-1 CAPLUS

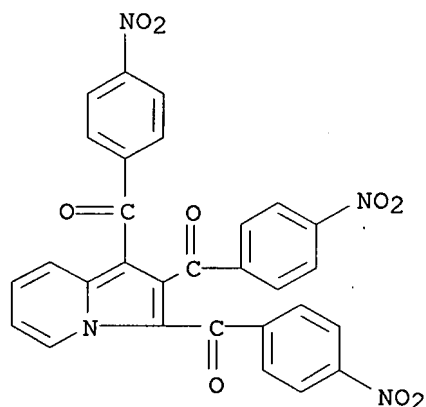
CN Methanone, 1,2,3-indolizinetriyltris[(3,4-dimethylphenyl)]- (9CI) (CA INDEX NAME)



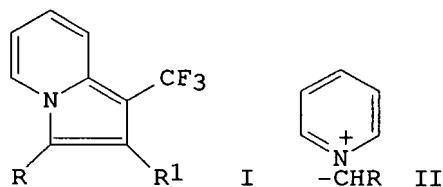
RN 143718-66-5 CAPLUS
 CN Methanone, 1,2,3-indolizinetriyltris[(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



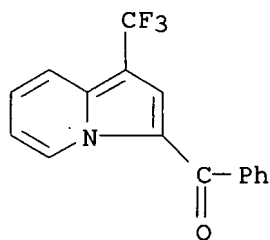
RN 143718-67-6 CAPLUS
 CN Methanone, 1,2,3-indolizinetriyltris[(4-nitrophenyl)- (9CI) (CA INDEX NAME)



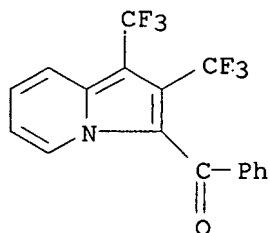
L4 ANSWER 33 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:491996 CAPLUS
 DOCUMENT NUMBER: 115:91996
 TITLE: Fluorocarbon derivatives of nitrogen. Part 18.
 Synthesis of fluorinated indolizines through reactions
 of pyridinium ethoxycarbonylmethylide or pyridinium
 phenacylide with perfluoropropene, perfluorobut-2-yne
 and 3,3,3-trifluoropropyne
 AUTHOR(S): Banks, Ronald Eric; Khaffaff, Suad Najmaldin
 CORPORATE SOURCE: Inst. Sci. Technol., Univ. Manchester, Manchester, M60
 1QD, UK
 SOURCE: Journal of Fluorine Chemistry (1991), 51(3), 407-18
 CODEN: JFLCAR; ISSN: 0022-1139
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 115:91996
 GI



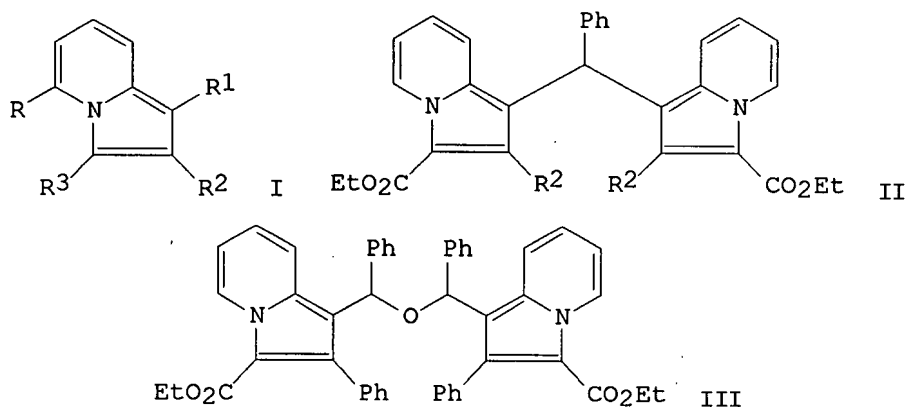
AB Fluorinated indolizines I (R = CO₂Et, CPh; R₁ = F, CF₃, H) were prepared by
 reaction of pyridinium methylides II, generated from N-
 [(ethoxycarbonyl)methyl]pyridinium bromide or N-phenacylpyridinium iodide
 and NaH, with CF₂:CFCH₃, CF₃C.tplbond.CCF₂CF₃ and HC.tplbond.CCF₃.
 IT 135339-04-7P 135339-07-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 135339-04-7 CAPLUS
 CN Methanone, phenyl[1-(trifluoromethyl)-3-indoliziny]- (9CI) (CA INDEX
 NAME)



RN 135339-07-0 CAPLUS
 CN Methanone, [1,2-bis(trifluoromethyl)-3-indoliziny]phenyl- (9CI) (CA
 INDEX NAME)



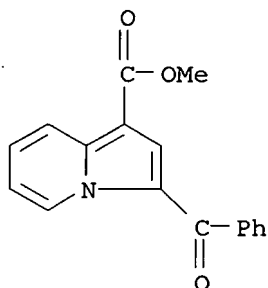
L4 ANSWER 34 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:206937 CAPLUS
 DOCUMENT NUMBER: 114:206937
 TITLE: Acid-catalyzed reactions of 1- and
 3-(α -hydroxybenzyl)indolizines
 AUTHOR(S): Miki, Yasuyoshi; Hiroishi, Yuji; Hachiken, Hiroko;
 Takemura, Shoji
 CORPORATE SOURCE: Fac. Pharm. Sci., Kinki Univ., Higashi-Osaka, 577,
 Japan
 SOURCE: Journal of Heterocyclic Chemistry (1991), 28(1), 45-8
 CODEN: JHTCAD; ISSN: 0022-152X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 114:206937
 GI



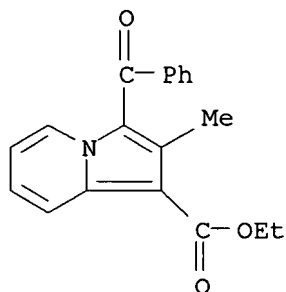
AB Treatment of 1- and 3-(α -hydroxybenzyl)indolizines I [R = H, R1 =
 CH(OH)Ph, R2 = H, Ph, R3 = CO2Et; R = H, Me, R1 = CO2Me, R2 = H, Ph, R3 =

CH(OH)Ph] with trifluoroacetic acid in dichloromethane gave phenylbis(α -indoliziny)methanes, bis[α -(indoliziny)benzyl] ethers and indolizines, depending upon the presence or absence of the substituent at the 2- or 5-position and the reaction conditions used. Thus, treating I [R = H, R1 = CH(OH)Ph, R2 = Ph, R3 = CO2Et] with CF3CO2H gave phenylbis(indoliziny)methane II and the bis[lindoliziny)benzyl] ether III. I [R = R2 = H, R1 = CH(OH)Ph, R3 = CO2Et] gave only II (R2 = H).

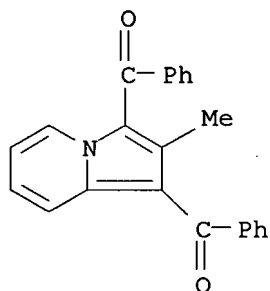
IT 17281-79-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reduction of)
 RN 17281-79-7 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl-, methyl ester (8CI, 9CI) (CA INDEX NAME)



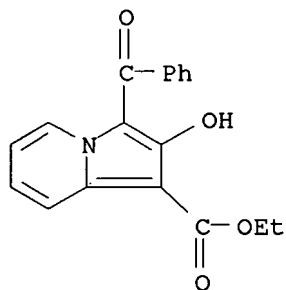
L4 ANSWER 35 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1987:213700 CAPLUS
 DOCUMENT NUMBER: 106:213700
 TITLE: The synthesis of indolizines: the reaction of α -halo pyridinium salts with β -dicarbonyl species
 AUTHOR(S): Nugent, Richard-A.; Murphy, Megan
 CORPORATE SOURCE: Upjohn Co., Kalamazoo, MI, 49001, USA
 SOURCE: Journal of Organic Chemistry (1987), 52(11), 2206-8
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 106:213700
 AB The reaction of β -keto esters and β -diketones with readily accessible 2-halopyridinium salts in the presence of DBU serves as a rapid and convenient method for the synthesis of substituted indolizines. The use of di-Et malonate as the dicarbonyl component of the reaction enables the preparation of previously undescribed 2-hydroxyindolizines.
 IT 107846-98-0P 107847-02-9P 107847-06-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 107846-98-0 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl-2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



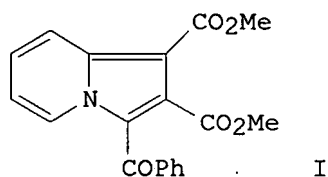
RN 107847-02-9 CAPLUS
 CN Methanone, (2-methyl-1,3-indolizinediyl)bis[phenyl- (9CI) (CA INDEX NAME)



RN 107847-06-3 CAPLUS
 CN 1-Indolizinecarboxylic acid, 3-benzoyl-2-hydroxy-, ethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 36 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1986:424147 CAPLUS
 DOCUMENT NUMBER: 105:24147
 TITLE: Phase-transfer catalysis of dipolar species.
 1,3-Dipolar cycloadditions of pyridinium ylides in a
 liquid-liquid biphasic system
 AUTHOR(S): Gandasegui, M. Teresa; Alvarez-Builla, Julio
 CORPORATE SOURCE: Dep. Quim. Org., Univ. Alcala Henares, Madrid, Spain
 SOURCE: Journal of Chemical Research, Synopses (1986), (2),
 74-5
 CODEN: JRPSDC; ISSN: 0308-2342
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 105:24147
 GI

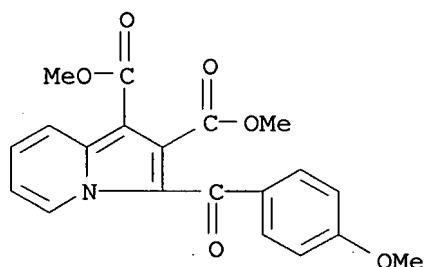


AB Pyridinium salts underwent cycloaddn. reactions with alkynoate esters under liquid-liquid phase-transfer-catalyzed conditions to give the corresponding indolizines. E.g., N-phenacylpyridinium bromide and (MeO2CC.tplbond.)₂ were stirred for 8 h at room temperature with CH₂Cl₂ and 50% aqueous K₂CO₃ in the presence of Bu₄NBr to give 76% indolizine I: the yield increased to 82% with ultrasound irradiation

IT 102767-47-5P 102767-53-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

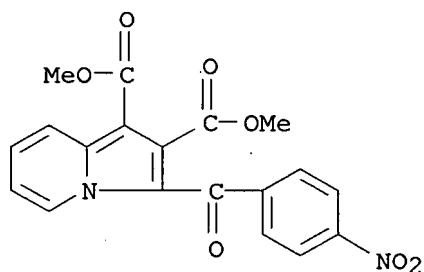
RN 102767-47-5 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-(4-methoxybenzoyl)-, dimethyl ester (9CI) (CA INDEX NAME)



RN 102767-53-3 CAPLUS

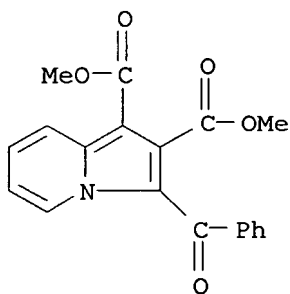
CN 1,2-Indolizinedicarboxylic acid, 3-(4-nitrobenzoyl)-, dimethyl ester (9CI)
 (CA INDEX NAME)



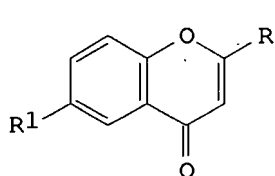
IT 17281-78-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, by phase transfer-catalyzed reaction)

RN 17281-78-6 CAPLUS

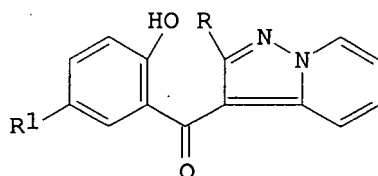
CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



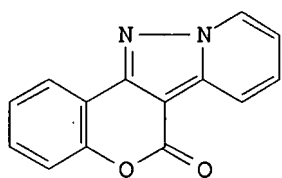
L4 ANSWER 37 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1986:88475 CAPLUS
 DOCUMENT NUMBER: 104:88475
 TITLE: 1,3-Dipolar cycloaddition reaction of chromones and coumarin with pyridinium ylides
 AUTHOR(S): Yokoe, Ichiro; Matsumoto, Shunsuke; Shirataki, Yoshiaki; Komatsu, Manki
 CORPORATE SOURCE: Fac. Pharm. Sci., Josai Univ., Sakado, 350-02, Japan
 SOURCE: Heterocycles (1985), 23(6), 1395-8
 CODEN: HTCYAM; ISSN: 0385-5414
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 104:88475
 GI



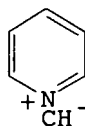
I



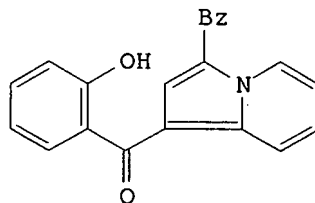
II



III

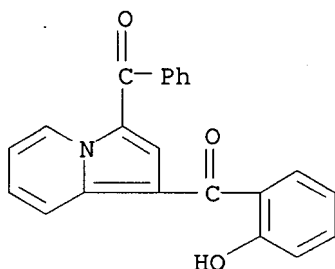


IV

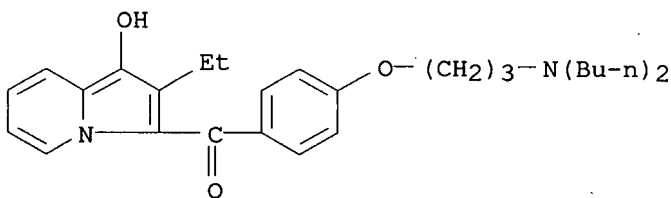


V

AB Cyclocondensation of N-aminopyridinium iodide with chromones I (R = H, Me, Ph; R1 = H, Cl, Me) in DMF containing K2CO3 at room temperature for 4 days gave 18.1-51.4% pyrazolopyridones II. Similar reaction of coumarin gave benzopyranopyrazolopyridine III, and cyclization of the phenacylide IV with I (R = R1 = H) gave indolizine V.
 IT 100421-20-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 100421-20-3 CAPLUS
 CN Methanone, (3-benzoyl-1-indoliziny1)(2-hydroxyphenyl)- (9CI) (CA INDEX NAME)

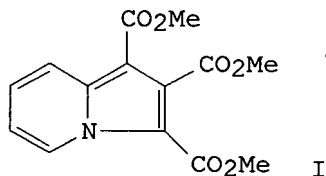


L4 ANSWER 38 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1985:55576 CAPLUS
 DOCUMENT NUMBER: 102:55576
 TITLE: Strategies for drug metabolic profiling in human bile after administration of non-radioactive butopropine
 AUTHOR(S): Overzet, F.; De Zeeuw, R. A.
 CORPORATE SOURCE: Dep. Toxicol., State Univ., Groningen, 9713 AW, Neth.
 SOURCE: Journal of Pharmaceutical and Biomedical Analysis (1984), 2(1), 3-17
 CODEN: JPBADA; ISSN: 0731-7085
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A systematic approach to the recognition, isolation and identification of metabolites of butopropine [62228-20-0] in human bile is described as an example of the general approach in this area. Human profiles are compared with those obtained after administration of ¹⁴C-labeled drug to the dog. The screening method is based on gradient-elution HPLC. Isolation is by isocratic reversed-phase HPLC and the identification procedure is performed using UV, mass, and NMR spectroscopy. The main metabolite excreted in human bile was tentatively identified as 1-hydroxybutopropine [94419-24-6].
 IT 94419-24-6
 RL: BIOL (Biological study)
 (as butopropine biliary metabolite, nonradioactive spectroscopic methods in study of, in humans)
 RN 94419-24-6 CAPLUS
 CN Methanone, [4-[3-(dibutylamino)propoxy]phenyl] (2-ethyl-1-hydroxy-3-indoliziny)- (9CI) (CA INDEX NAME)



L4 ANSWER 39 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1984:591612 CAPLUS
 DOCUMENT NUMBER: 101:191612
 TITLE: Use of dipolar species under phase-transfer catalysis. Part 1. 1,3-Dipolar cycloaddition in a two-phase system
 AUTHOR(S): Alvarez-Builla, Julio; Quintanilla, M. Gloria; Abril, Catalina; Gandasegui, M. Teresa
 CORPORATE SOURCE: Dep. Quim. Org., Univ. Alcala de Henares, Madrid, Spain

SOURCE: Journal of Chemical Research, Synopses (1984), (6),
202-3
CODEN: JRPSDC; ISSN: 0308-2342
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

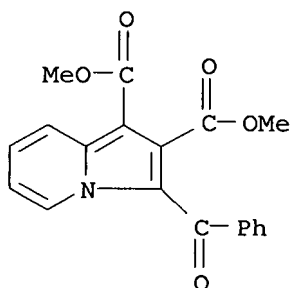


AB Eleven indolizines were prepared in 18-82% yield by 1,3-dipolar cycloaddn. of pyridinium ylides with RC.tplbond.CCO2Me (R = MeO2C, Ph) in a 2-phase system. Addition of MeO2CC.tplbond.CCO2Me to N-(methoxycarbonylmethyl)pyridinium chloride and KOH, supported on alumina (1:1) suspended in MeCN, at room temperature for >18 h, followed by dehydrogenation with 5% Pd-C at reflux for 4 h gave 44% indolizine I. Phase-transfer catalysts did not significantly improve the yields.

IT 17281-78-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by cycloaddn. reaction of pyridinium ylide with acetylenic ester, in two-phase system)

RN 17281-78-6 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 40 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1983:197976 CAPLUS

DOCUMENT NUMBER: 98:197976

TITLE: Reaction of 2,2,6-trimethyl-1,3-dioxin-4-one with isoquinolinium and pyridinium ylides

AUTHOR(S): Sato, Masayuki; Kanuma, Norio; Kato, Tetsuzo

CORPORATE SOURCE: Pharm. Inst., Tohoku Univ., Aobayama, 980, Japan

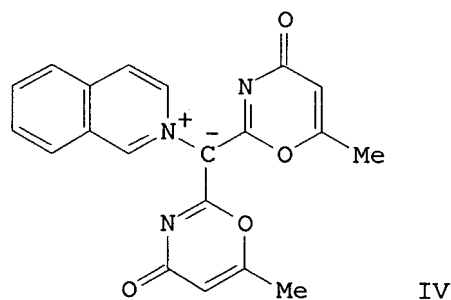
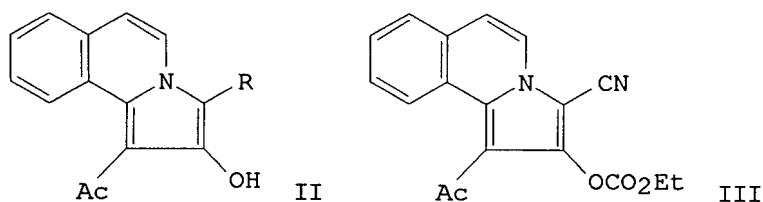
SOURCE: Chemical & Pharmaceutical Bulletin (1982), 30(12), 4359-64
CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 98:197976

GI



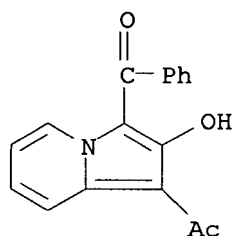
AB The reactions of diketene-acetone adduct [2,2,6-trimethyl-1,3-dioxin-4-one (I)] with heterocyclic ylides were studied. Heating I with isoquinolinium bis(ethoxycarbonyl)methylide gave pyrroloisoquinoline II (R = CO₂Et). Similarly, isoquinolinium cyano(ethoxycarbonyl)methylide and phenacylide gave pyrroloisoquinolinecarbonitrile III and II (R = Bz), resp. Isoquinolinium dicyanomethylide reacted with I to give bis(methyloxoxazinyl)methylide IV. Pyridinium ylides similarly reacted with I to give indolizines and oxazinylmethylides.

IT 85574-80-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 85574-80-7 CAPLUS

CN Ethanone, 1-(3-benzoyl-2-hydroxy-1-indoliziny)- (9CI) (CA INDEX NAME)



L4 ANSWER 41 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1980:620542 CAPLUS

DOCUMENT NUMBER: 93:220542

TITLE: Reaction of 2- and 4-vinylpyridines with phenacylpyridinium ylides

AUTHOR(S): Terent'ev, P. B.; Vinogradova, S. M.; Kost, A. N.

CORPORATE SOURCE: Mosk. Gos. Univ., Moscow, USSR

SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1980), (5), 651-6

CODEN: KGSSAQ; ISSN: 0453-8234

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 93:220542

GI

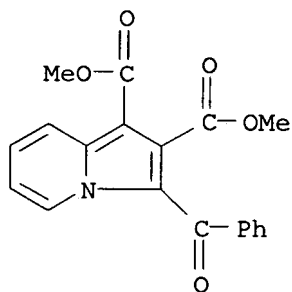
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Treatment of ylides I ($R_1 = R_2 = H$; $R_1 = NO_2$, $R_2 = H$, CO_2Et ; $R_1 = H$, $R_2 = CO_2Et$, Br , Me) with 2- or 4-vinylpyridine gave 5-29% indolizines II ($R = 2$ - or 4- pyridyl). I and $MeO_2CC:CCO_2Me$ gave a mixture of III and IV. An anomalous reaction occurred between 2-bromo-1-phenacylpyridinium ylide and $MeO_2CC:CCO_2Me$; in addition to 5-bromo-1,2-dicarbomethoxy-3-benzoylindolizine (V), VI was obtained. V was converted to VI by treatment with Al_2O_3 .

IT 17281-78-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 17281-78-6 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 42 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:422994 CAPLUS

DOCUMENT NUMBER: 87:22994

TITLE: Investigations on 2-chloropyridinium salts, III.
Reactions with CH-acidic compounds and cyclization to indolizines

AUTHOR(S): Pauls, Hartmut; Kroehnke, Fritz

CORPORATE SOURCE: Inst. Org. Chem., Univ. Giessen, Giessen, Fed. Rep. Ger.

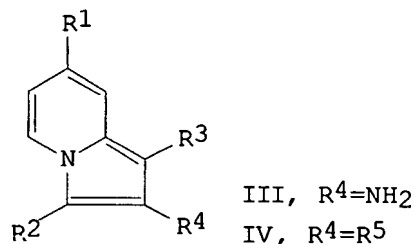
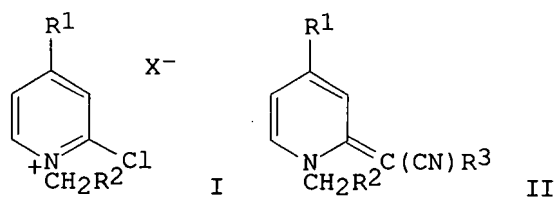
SOURCE: Chemische Berichte (1977), 110(4), 1294-303
CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 87:22994

GI



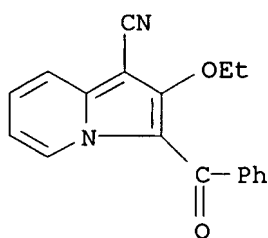
AB Pyridinium salts I (R¹ = H, R² = 4-MeC₆H₄CO, 4-BrC₆H₄CO, Bz, H, Ac; R¹ = Me, R² = Bz, Ac) reacted with nitriles R³CH₂CN (R³ = cyano, CO₂Et) in PrOH containing (Me₂CH)₂NEt in 2 h at 80° or 6 h at room temperature to give 35-95% resp. pyridines II which cyclized to 40-92% resp. indolizines III. Heating II (R¹ = H, R² = Ac, Bz, 4-MeC₆H₄CO, R¹ = Me, R² = Bz, R³ = cyano) with concentrated HCl or II (R¹ = H, R² = Bz, 4-MeC₆H₄CO, 4-BrC₆H₄CO, R¹ = Me, R² = Ac, R³ = CO₂Et) with 2NHCl at 100° cleaved CO₂ to give pyridines IV (R¹ = R² = H, R³ = cyano, R⁵ = 4-MeC₆H₄, Me; R¹ = Me, R² = H, R³ = cyano, R⁵ = Ph).

IT 63014-86-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 63014-86-8 CAPLUS

CN 1-Indolizinecarbonitrile, 3-benzoyl-2-ethoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 43 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:89516 CAPLUS

DOCUMENT NUMBER: 86:89516

TITLE: Addition reactions of heterocyclic compounds. Part LXIV. Indolizines from reactions of hex-3-yne-2,5-dione, but-3-yn-2-one, and allenecarboxylic esters with some nitrogen-containing heterocyclic ylides

AUTHOR(S): Acheson, R. Morrin; Bite, Maris G.; Cooper, Martin W.
CORPORATE SOURCE: Dep. Biochem., Univ. Oxford, Oxford, UK

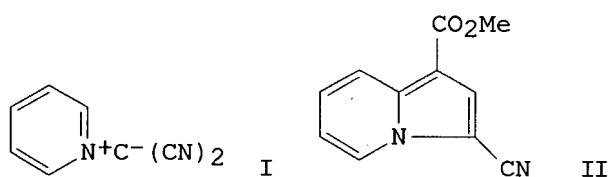
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1976), (18), 1908-11

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

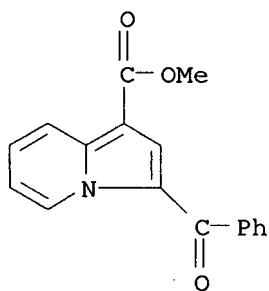


AB Pyridinium methylides with MeCOC.tplbond.CCOMe, HC.tplbond.CCO2Me, HC.tplbond.CCOME, PhC.tplbond.CCO2Me, MeO2CCH:C:CHCO2Me, CH2:C:CMeco2Et, and MeCH:C:CMeco2Et gave indolizines. E.g., I with HC.tplbond.CCO2Me in refluxing PhMe for 1 hr gave 18% indolizine II.

IT 17281-79-7P 51386-41-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

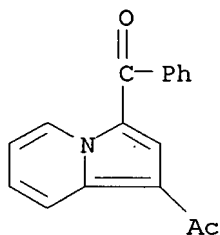
RN 17281-79-7 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-, methyl ester (8CI, 9CI) (CA INDEX NAME)



RN 51386-41-5 CAPLUS

CN Ethanone, 1-(3-benzoyl-1-indolizinyloxy)- (9CI) (CA INDEX NAME)



L4 ANSWER 44 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1975:540719 CAPLUS

DOCUMENT NUMBER: 83:140719

TITLE: Mass-spectral study of indolizine derivatives

AUTHOR(S): Terent'ev, P. B.; Vinogradova, S. M.; Kost, A. N.

CORPORATE SOURCE: Mosk. Gos. Univ. im. Lomonosova, Moscow, USSR

SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1975), (4), 509-13

CODEN: KGSSAQ; ISSN: 0132-6244

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Dissociative ionization of substituted 3-aryloindolizine takes place with

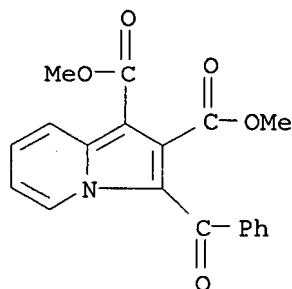
a subsequent loss of the aryl fragment, and then CO. Simultaneously there is fragmentation of OH and CHO groups. A comparison of the stability of these compds. with indole analogs was made.

IT 17281-78-6 25627-81-0

RL: PRP (Properties)
(mass spectrum of)

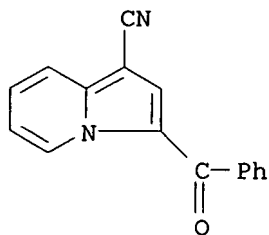
RN 17281-78-6 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 25627-81-0 CAPLUS

CN 1-Indolizinecarbonitrile, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 45 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1974:36969 CAPLUS

DOCUMENT NUMBER: 80:36969

TITLE: Synthesis and thermal reaction of pyridinium 3,3-diacyl-1-benzoylallylides[3,3-diacyl-1-benzoyl-1-(1-pyridinio)prop-2-enides]. Formation of indolizine derivatives

AUTHOR(S): Tamura, Yasumitsu; Sumida, Yoshio; Ikeda, Masazumi

CORPORATE SOURCE: Fac. Pharm. Sci., Osaka Univ., Osaka, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1973), (19), 2091-5

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

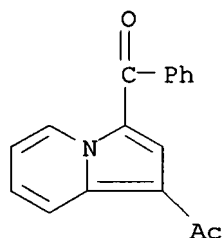
GI For diagram(s), see printed CA Issue.

AB Pyridinium phenacylides with 2,2-diacyl-1-ethoxyethylenes gave pyridinium 3,3-diacyl-1-benzoyl-allylides. E.g. pyridinium phenacylide with EtOCH:C(COMe)₂ gave 75% allylide (I, R = H). I (R = H) in refluxing Me₂C₆H₄ gave 6% indolizine (II; R = H, R₁ = Bz). 2-Methyl derivs. of I in refluxing Me₂C₆H₄ gave mainly 1-acetyl-2-phenylindolizines. E.g. I (R = Me) gave 30% II (R = Ph, R₁ = CH:CHCOMe) and 2% II (R = H, R₁ = Bz).

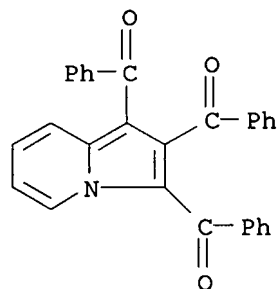
IT 51386-41-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

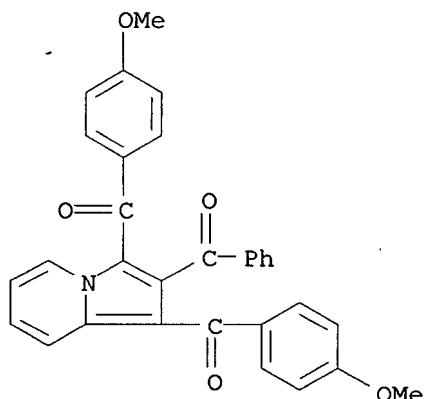
RN 51386-41-5 CAPLUS
CN Ethanone, 1-(3-benzoyl-1-indoliziny)- (9CI) (CA INDEX NAME)



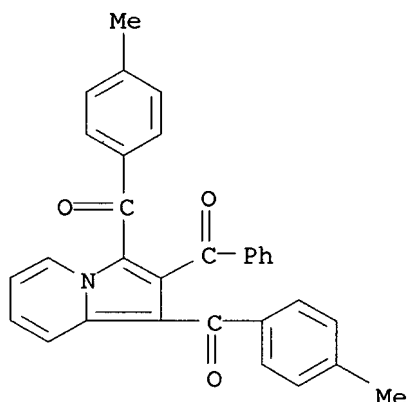
L4 ANSWER 46 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:71825 CAPLUS
DOCUMENT NUMBER: 78:71825
TITLE: Red dihydroindolizines from N-phenacylpyridinium salts
AUTHOR(S): Schuetze, Detlef Ingo; Kroehnke, Fritz
CORPORATE SOURCE: Inst. Org. Chem., Univ. Giessen, Giessen, Fed. Rep. Ger.
SOURCE: Justus Liebigs Annalen der Chemie (1972), 765, 20-8
CODEN: JIACBF; ISSN: 0075-4617
DOCUMENT TYPE: Journal
LANGUAGE: German
GI For diagram(s), see printed CA Issue.
AB Reaction of p-RC₆H₄COCH₂Z⁺ Br⁻ (Z⁺ = pyridinium; R = H, MeO, Me, Br, Ph, or O₂N) with p-R₁C₆H₄COCHO (R₁ = H or MeO) in alkaline alc. solution in 2:1 molar ratio gave 30-61% indolizines (I). From the mother liquors, 10-30% p-RC₆H₄COCH₂CH(OH)COC₆H₄R₁-p were isolated. I were converted by acids to give p-RC₆H₄COCH(Z⁺)C-(COC₆H₄R₁-p):CHCOC₆H₄R-p X⁻ (II). I were characterized by dehydrogenation and the NMR spectra of II (X = CF₃CO₂).
IT 17281-90-2P 40240-69-5P 40240-70-8P
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
RN 17281-90-2 CAPLUS
CN Methanone, 1,2,3-indolizinetriyltris[phenyl- (9CI) (CA INDEX NAME)



RN 40240-69-5 CAPLUS
CN Methanone, (2-benzoyl-1,3-indolizinediyl)bis[(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



RN 40240-70-8 CAPLUS
 CN Methanone, (2-benzoyl-1,3-indolizinediyl)bis[(4-methylphenyl)- (9CI) (CA INDEX NAME)

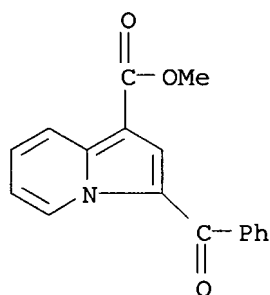


L4 ANSWER 47 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1973:29578 CAPLUS
 DOCUMENT NUMBER: 78:29578
 TITLE: Heteroaromaticity. LXIV. Characterization of pyridinium N-allylides
 AUTHOR(S): Sasaki, T.; Kanematsu, K.; Kakehi, A.; Ito, G.
 CORPORATE SOURCE: Inst. Appl. Org. Chem., Nagoya Univ., Nagoya, Japan
 SOURCE: Tetrahedron (1972), 28(19), 4947-58
 CODEN: TETRAB; ISSN: 0040-4020
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 78:29578
 GI For diagram(s), see printed CA Issue.
 AB Pyridine derivs. reacted with γ -bromocrotonates to give pyridinium N-allylides [e.g. I (R = H)] which reacted together or with acetylenic compds. to give 3-ethenylindolizines; e.g. I (R = H) with K₂CO₃ in CHCl₃ at room temperature with or without HC.tplbond.CCO₂Et gave II. I (R = H) with pyridinium N-phenacylide gave the 3-benzoylindolizine (III) indicating the N-allylide to be a 1,3-dipolarophile; I (R = Me) with diphenylcyclopropanone gave Et 3,4-diphenylsalicylate. N-Allylides derived from γ -bromo- β -methylcrotonates cyclized intramol. to give 3-unsubstituted indolizine derivs.; e.g. IV with K₂CO₃-CHCl₃ gave V.
 IT 17281-79-7P 40624-43-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

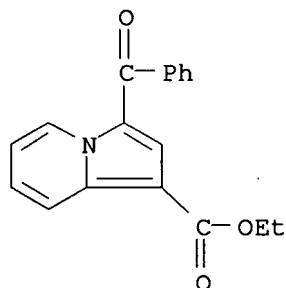
RN 17281-79-7 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-, methyl ester (8CI, 9CI) (CA INDEX NAME)



RN 40624-43-9 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-, ethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 48 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1972:434269 CAPLUS

DOCUMENT NUMBER: 77:34269

TITLE: Indolizines. I. Direct synthesis of acylindolizines from substituted pyridinium salts

AUTHOR(S): Dainis, I.

CORPORATE SOURCE: Chem. Sch., Univ. New South Wales, Kensington, Australia

SOURCE: Australian Journal of Chemistry (1972), 25(5), 1003-24
CODEN: AJCHAS; ISSN: 0004-9425

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

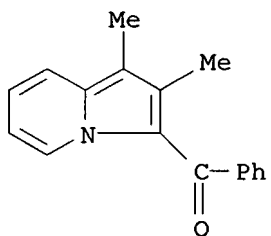
AB Several routes to 1-(formylmethyl)-2-methylpyridinium bromide (I) were examined. Chichibabin cyclization of I to indolizine failed; an intermolecular aldol condensation occurred. Preparation of acyl- and diacylindolizines, e.g., II (R₁, R₂, R₃ = H, Me, Ph) and III (R₁, R₂ = H, Me, Ph), from 1-(β-oxoalkyl)-2-alkyl- and 1-(β-oxoalkyl)-2-benzylpyridinium salts was described. Using NaOAc-HOAc this reaction gave isomeric products. 1-Acyl-2,3-disubstituted and 3-acyl-1,2-disubstituted indolizines were formed from salts by Chichibabin cyclization and subsequent in situ acylation. 1-Acetyl-2-methylpyridinium bromide gave good yields of 3-acyl- and 1,3-diacylindolizines by this path and also via 1-acetyl-2-acetylmethylene-1,2-dihydropyridine. Thermal cyclization of 2-phenylpyridinium diphenacetylmethylide gave 3-benzoyl-1,2-diphenylindolizine.

IT 37050-11-6P

RL: SPN (Synthetic preparation); PREP (Preparation).
(preparation of)

RN 37050-11-6 CAPLUS

CN Methanone, (1,2-dimethyl-3-indoliziny)phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 49 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1971:448933 CAPLUS

DOCUMENT NUMBER: 75:48933

TITLE: Analgesic and antiinflammatory indolizineacetic acids

INVENTOR(S): Brown, Allan Guilford; Nayler, John H. C.

PATENT ASSIGNEE(S): Beecham Group Ltd.

SOURCE: Ger. Offen., 15 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2046904	A	19710422	DE 1970-2046904	19700923
GB 1268424	A	19720329	GB 1969-48856	19691004
NL 7013584	A	19710406	NL 1970-13584	19700914
ZA 7006287	A	19710630	ZA 1970-6287	19700914
ES 383992	A1	19730901	ES 1970-383992	19700925
AT 295513	B	19720110	AT 1970-8771	19700929
FR 2070109	A1	19710910	FR 1970-35477	19701001
FR 2070109	A5	19710910		
JP 49010517	B	19740311	JP 1970-87040	19701003
US 3806513	A	19740423	US 1972-311466	19721204
PRIORITY APPLN. INFO.:			GB 1969-48856	A 19691004
			US 1970-74916	A2 19700923

GI For diagram(s), see printed CA Issue.

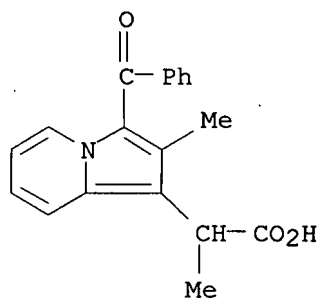
AB Title compds. are prepared Thus, Ph3P and Et 2-bromopropionate gives [Ph3P+CHMeCO2Et]Br-, which is condensed with 2-formylpyridine in the presence of Na in EtOH to give Et α -methyl- β -(2-pyridyl)acrylate, which is hydrogenated over Pd/C in AcOH to give Et α -methyl- β -(2-pyridyl)propionate. This with bromoacetone in acetone gives α -(2-methylindolizin-1-yl)propionic acid the Et ester of which is acylated with Ac2O or BzCl and the product hydrolyzed to give I (R = Me or Ph).

IT 32999-53-4P

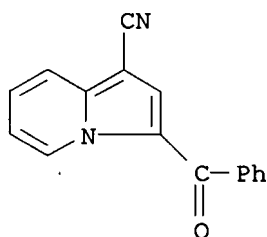
RL: SPN (Synthetic preparation); PREP (Preparation).
(preparation of)

RN 32999-53-4 CAPLUS

CN 1-Indolizineacetic acid, 3-benzoyl- α ,2-dimethyl- (8CI) (CA INDEX NAME)



L4 ANSWER 50 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1971:435631 CAPLUS
 DOCUMENT NUMBER: 75:35631
 TITLE: Indolizines from phenacylcyclimonium salts
 AUTHOR(S): Froehlich, Juerg; Kroehnke, Fritz
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Giessen, Giessen, Fed. Rep. Ger.
 SOURCE: Chemische Berichte (1971), 104(5), 1621-8
 CODEN: CHBEAM; ISSN: 0009-2940
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 GI For diagram(s), see printed CA Issue.
 AB Dipolar 1,3-addition of H₂C:CHCN to N-ylides, generated in situ by bases from N-phenacylcyclimonium salts (I), e.g. N-phenacylpyridinium bromide gave tetrahydroindolizines (II), e.g. 3-benzoyl-1-cyano-1,2,3,8a-tetrahydroindolizine. II were dehydrogenated to dihydroindolizines (III), e.g. 3-benzoyl-1-cyano-2,3-dihydroindolizine and indolizines (IV), e.g. 3-benzoyl-1-cyanoindolizine.
 IT 25627-81-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 25627-81-0 CAPLUS
 CN 1-Indolizinecarbonitrile, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 51 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1970:78938 CAPLUS
 DOCUMENT NUMBER: 72:78938
 TITLE: Chemistry of cyanoacetylenes. V. 1,3-Dipolar cycloaddition reactions of cyanoacetylenes with N-ylides and N-imines
 AUTHOR(S): Sasaki, Tadashi; Kanematsu, Ken; Yukimoto, Yusuke
 CORPORATE SOURCE: Fac. Eng., Nagoya Univ., Nagoya, Japan
 SOURCE: Journal of the Chemical Society [Section] C: Organic (1970), (3), 481-5
 CODEN: JSOOAX; ISSN: 0022-4952
 DOCUMENT TYPE: Journal
 LANGUAGE: English

OTHER SOURCE(S): CASREACT 72:78938

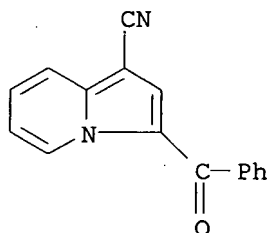
AB 1,3-Dipolar cycloaddn. reactions of zwitterionic pyridinium, quinolinium, and isoquinolinium phenacylides with cyanoacetylene or chlorocyanoacetylene gave 1-cyanoindolizine derivs. Similar reactions of N-aminopyridinium and isoquinolinium salts gave 3-cyanopyrazol[1,5-a]pyridine derivs. A 3-methylpyridinium ylide reacted with the same dipolarophiles at the 2-position, in spite of hindrance by the Me group. Reactions of cyclopentadiene ylides with cyanoacetylenes gave trans-2-(2-cyanovinyl)cyclopentadiene ylides.

IT 25627-81-0P 25627-86-5P 25627-87-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

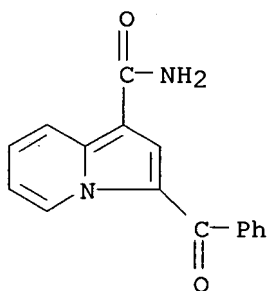
RN 25627-81-0 CAPLUS

CN 1-Indolizinecarbonitrile, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



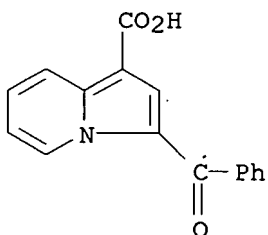
RN 25627-86-5 CAPLUS

CN 1-Indolizinecarboxamide, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



RN 25627-87-6 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl- (8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 52 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1970:55285 CAPLUS

DOCUMENT NUMBER: 72:55285

TITLE: Analgesic indolizine-1-acetic acids

INVENTOR(S): Nayler, John H. C.

PATENT ASSIGNEE(S): Beecham Group Ltd.

SOURCE: Brit., 10 pp.
 CODEN: BRXXAA
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1174124		19691210	GB 1967-30271	19670630

GI For diagram(s), see printed CA Issue.

AB The title compds. (I; R = CO₂H) which exhibit analgesic and antiinflammatory activity were prepared 3-p-Chlorobenzoyl-2-methylindolizine (80%), m. 109-10° (light petroleum) was prepared by reacting 2-methylindolizine with p-ClC₆H₄COCl. 5-Ethoxy-2-methylpyridine (38 g) in 150 ml dry Me₂CO refluxed 15 min with 42 g BrCH₂Ac gave 6-ethoxy-2-methylindolizine, b0.4 113-14°. 2,4-Lutidine (21.4 g) added to 40 g BzCH₂Br in 60 ml dry Me₂-CO, the mixture refluxed 30 min and kept overnight at room temperature gave 2,4-dimethyl-1-phenacylpyridinium bromide, m. 228-9°. This (10 g) in 100 ml H₂O treated with 30 g NaHCO₃ and the mixture refluxed 2 hr gave 97% 7-methyl-2-phenylindolizine, m. 207° (decomposition). A mixture of 31.5 g 2,7-dimethylindolizine and 28 g anhydrous AcONa in 200 ml Ac₂O refluxed 7 hr gave 70% 3-acetyl-2,7-dimethylindolizine, b0.15 136-8°, m. 87-8° (light petroleum). Similarly prepared were 83% 3-acetyl-7-methyl-2-phenylindolizine, b0.35 180-2°; 89% 3-acetyl-2-(p-methoxyphenyl)-indolizine, m. 103-5° (EtOH); and 80% 3-acetyl-6-ethoxy-2-methylindolizine, b0.13 138-40°, m. 75° (light petroleum). A mixture of 7.25 ml AcOH and 5 ml H₂O cooled to 0°, 3.3 ml anhydrous Me₂NH added dropwise followed by 4 ml 40% aqueous HCHO and 12.45 g 3-benzoyl-2-methylindolizine, and the mixture agitated 6.5 hr gave 89% I (R = NMe₂, R₁ = Me, R₂ = Ph, R₃ = H) (II), m. 88° (light petroleum). The following I (R = NMe₂) were similarly prepared [R₁, R₂, R₃, % yield, and m.p. and (or) b.p. given]: Me, p-ClC₆H₄, H, 67, 108°, (light petroleum); Me, Me, H, 83, 56° (light petroleum), b1.4 168-9°; Ph, Me, H, 25, 105° (aqueous Me₂CO), b1.0 190-2°; Bu, Me, H, 59, b7.0 170-4°; Me, Me, 7-Me, 28, b0.35 167-73°; Ph, Me, 7-Me, 78, 107-8° (light petroleum); p-MeOC₆H₄, Me, H, 12, b1.0 240-50°; and Me, Me, 6-OEt, 54, 79-80° (light petroleum), b0.3 173-5°. MeI (6 ml) added to 9.75 g II in 100 ml EtOH, followed by 5.5 g KCN in 60 ml H₂O, and the mixture refluxed 2 hr gave 74% I (R = CN, R₁ = Me, R₂ = Ph, R₃ = H) (III), m. 132-3° (EtOH). The following I (R = CN) were prepared similarly (R₁, R₂, R₃, % yield, and m.p. given): Me, p-ClC₆H₄, H, 78, 163-4° (EtOH); Me, Me, H, 45-50, 138-9° (MeOH); Ph, Me, H, 97.5, 139° (MeOH); H, Me, H, 78, 130-1° (aqueous EtOH); Bu, Me, H, -, 81-2° (light petroleum); Me, Me, 7-Me, 75, 123-4° (aqueous MeOH); Ph, Me, 7-Me, 95, 186-7° (aqueous MeOH); p-MeOC₆H₄, Me, H, 40, -, and Me, Me, 6-OEt, 85, 78° (aqueous MeOH). A solution of 4 g III in 100 ml EtOH added to 8 g KOH in 20 ml H₂O and the mixture refluxed 24 hr gave 2.5 g I (R = CO₂H, R₁ = Me, R₂ = Ph, R₃ = H), m. 195-7° (MeOH). The following I (R = CO₂H) were similarly prepared (R₁, R₂, R₃, % yield, and m.p. given): Me, Me, H (IV), 92, 197-8° (decomposition) (MeOH); Ph, Me, H, 72, 225° (MeOH); H, Me, H, 53, 195-7° (MeOH); Bu, Me, H, 74, 190-1° (decomposition) (aqueous MeOH); Me, Me, 7-Me, 40, 204° (decomposition) (MeOH); Ph, Me, 7-Me, 87, 204° (decomposition) (aqueous MeOH); p-MeOC₆H₄, Me, H, 67.5, 189-90° (MeOH); and Me, Me, 6-OEt, 60, 187-8° (monohydrate), (MeOH). Treating the corresponding acids in MeOH with CH₂N₂ in Et₂O at room temperature 3 hr gave the following I (R = CO₂Me) (R₁, R₂, R₃, % yield, and m.p. given): Me, Me, H, 96, 112-13° (light petroleum); H, Me, H, 83, 76-8° (aqueous Me₂CO); and Ph, Me, 7-Me, 63, 107-8° (light petroleum). IV Na salt

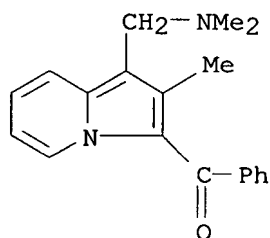
and 1 equivalent Et₂NCH₂CH₂Cl in iso-PrOH refluxed 5 hr gave 54% I (R = CO₂CH₂CH₂NEt₂, R₁ = R₂ = Me, R₃ = H), b_{0.1} 185-90°. Preparation and phys. data for many of the intermediates were given.

IT 26466-63-7P 26466-64-8P 26466-65-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

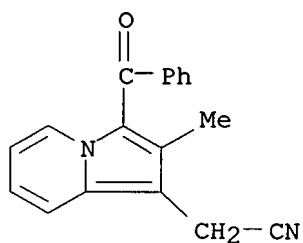
RN 26466-63-7 CAPLUS

CN Ketone, 1-[(dimethylamino)methyl]-2-methyl-3-indoliziny phenyl (8CI) (CA INDEX NAME)



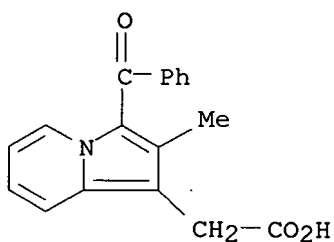
RN 26466-64-8 CAPLUS

CN 1-Indolizineacetonitrile, 3-benzoyl-2-methyl- (8CI) (CA INDEX NAME)



RN 26466-65-9 CAPLUS

CN 1-Indolizineacetic acid, 3-benzoyl-2-methyl- (8CI) (CA INDEX NAME)



L4 ANSWER 53 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1969:77753 CAPLUS

DOCUMENT NUMBER: 70:77753

TITLE: Indolizines

AUTHOR(S): Cardellini, Mario; Ottolino, Sabino; Tafaro, Pietro

CORPORATE SOURCE: Inst. Chim. Farm. Tossicol., Univ. Bari, Bari, Italy

SOURCE: Annali di Chimica (Rome, Italy) (1968), 58(11),
1206-13

CODEN: ANCRAI; ISSN: 0003-4592

DOCUMENT TYPE: Journal

LANGUAGE: Italian

GI For diagram(s), see printed CA Issue.

AB Some substituted indolizine derivs. (I) were prepared Indolizine-1-acetic

acid is the structural analog of indole-3-acetic acid (heteroauxin) and showed some auxin-like activity in preliminary tests. A solution of 8 g. Et diazoacetate in 100 cc. C₆H₆ was added dropwise to a boiling solution of 4 g. 3-benzoylindolizine (II) in 100 cc. C₆H₆ containing a small amount Cu₂Cl₂. After cooling and filtering the solution was evaporated to leave an oil which

was

taken up in a 4:1 H₂O-EtOH mixture. A 25% solution of NaOH was added and the mixture was refluxed 3 hrs. The solution was concentrated and acidified with 2N HCl

to give a precipitate of 2.5 g. I (R = Bz, R' = CH₂CO₂H) (Ia), m. 191.3°. Ia (0.2 g.) was dissolved in 10 cc. of 4N HCl and refluxed 40 min. to give 0.1 g. 1-carboxymethyl-3H-indolizinium chloride, m. 184-6°. A solution of 8 g. II, 3.5 g. Me₂NH.HCl, and 3.5 g. 40% HCHO in 250 cc. EtOH was heated at 95° 8 hrs. The EtOH was removed and the residue was dissolved in boiling H₂O leaving a small amount of insol. bis(3-benzoylindolizin-1-yl)methane, m. 190°. The H₂O solution gave 7 g. 1-(dimethylaminomethyl)-3-benzoylindolizine (III), m. 206-8°. III (24 g.) was added slowly to a 2N solution of NaH to give 20 g. of a yellow oil which crystallized to form I (R = Bz, R' = CH₂NMe₂) (IV), m. 82-3°. IV (30 g.) was treated with 6.5 g. MeI in 250 cc. EtOH and allowed to stand 12 hrs., to give 40 g. I (R = Bz, R' = CH₂N+Me₃I-) (V), m. 197°. Na (1.5 g.) was mixed with 13.5 g. Et acetamidomaleonate in 100 cc. dioxane and stirred at 90° to disperse the Na. V (25 g.) in 350 cc. dioxane was added and the mixture refluxed 30 hrs. to give 15 g. I [R = Bz, R' = CH₂C(CO₂Et)NMe₂] (VI), m. 196-7°. VI (14 g.) was refluxed with 6 g. NaH in 70 cc. H₂O and neutralized with HCl to give 10 g. I [R = Bz, R' = CH₂C(CO₂H)NMe₂] (VII), m. 171-3°. VII (1.5 g.) was suspended in 8 cc. H₂O and heated at 110° 2 hrs. under pressure to give 1.2 g. I [R = Bz, R' = CH₂CH(CO₂H)(NHAc)] (VIII), m. 201-2°. VII (7 g.) was refluxed in 60 cc. 5N HCl 2 hrs. to give 2.7 g. α-amino-β-(indolizin-1-yl)propionic acid (IX) m. 234-6°. VIII (2 g.) was refluxed 1 hr. in 50 cc. 4N HCl to give 0.6 g. IX. IX (0.5 g.) was dissolved in 7 cc. N NaOH and 0.3 cc. BzCl was added dropwise over 30 min. A solution of 2N HCl was added to give a pH of 4-5 and 0.3 g. of I [R = H, R' = CH₂CH(CO₂H)(NHBz)], m. 171-4°, was precipitated IX (0.25 g.) was treated with 10 cc. BzCl in 40 cc. C₆H₆ and allowed

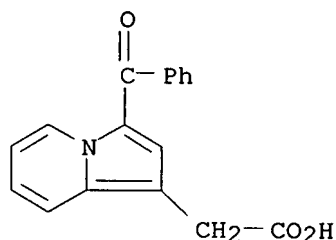
to stand at room temperature for 48 hrs. to give 0.15 g. I [R = Bz, R' = CH₂CH(CO₂H)(NHBz)], m. 256-7°. The derivs. were characterized from ir and uv spectra.

IT 21640-36-8P 21640-38-0P 21640-39-1P
21640-40-4P 21640-41-5P 21640-42-6P
21640-43-7P 21640-46-0P 21728-16-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

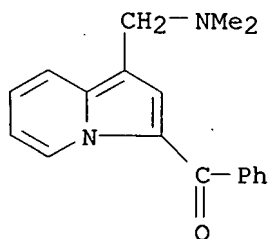
RN 21640-36-8 CAPLUS

CN 1-Indolizineacetic acid, 3-benzoyl- (8CI) (CA INDEX NAME)



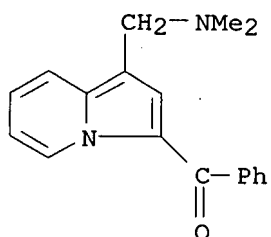
RN 21640-38-0 CAPLUS

CN Ketone, 1-[(dimethylamino)methyl]-3-indoliziny phenyl, monohydrochloride
(8CI) (CA INDEX NAME)

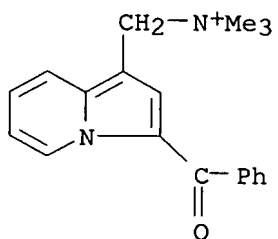


● HCl

RN 21640-39-1 CAPLUS
 CN Ketone, 1-[(dimethylamino)methyl]-3-indoliziny1 phenyl (8CI) (CA INDEX NAME)

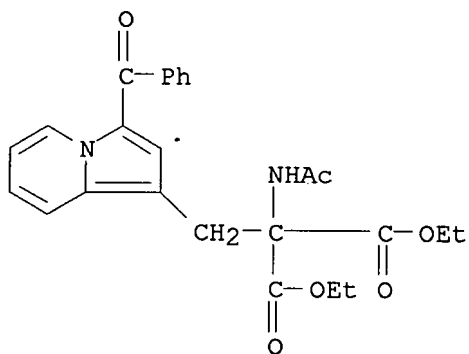


RN 21640-40-4 CAPLUS
 CN Ammonium, [(3-benzoyl-1-indoliziny1)methyl]trimethyl-, iodide (8CI) (CA INDEX NAME)



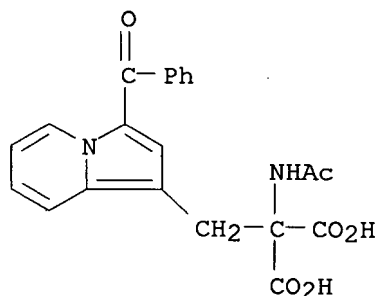
● I⁻

RN 21640-41-5 CAPLUS
 CN Malonic acid, acetamido[(3-benzoyl-1-indoliziny1)methyl]-, diethyl ester (8CI) (CA INDEX NAME)



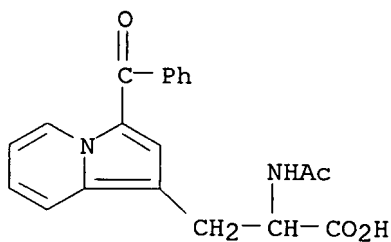
RN 21640-42-6 CAPLUS

CN Malonic acid, acetamido[(3-benzoyl-1-indoliziny)methyl]- (8CI) (CA INDEX NAME)



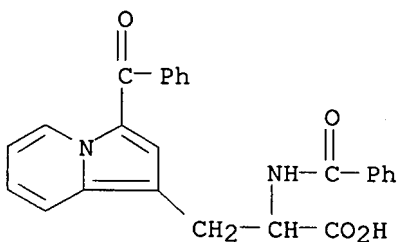
RN 21640-43-7 CAPLUS

CN 1-Indolizinepropionic acid, α -acetamido-3-benzyl- (8CI) (CA INDEX NAME)



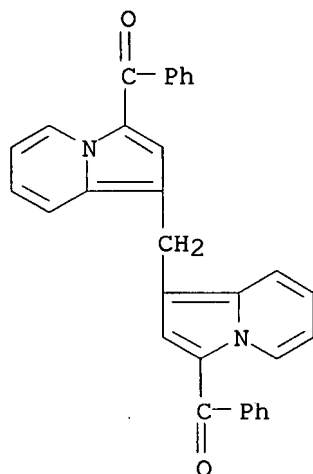
RN 21640-46-0 CAPLUS

CN 1-Indolizinepropionic acid, α -benzamido-3-benzoyl- (8CI) (CA INDEX NAME)



RN 21728-16-5 CAPLUS

CN Indolizine, 1,1'-methylenebis[3-benzoyl- (8CI) (CA INDEX NAME)



L4 ANSWER 54 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1968:49411 CAPLUS

DOCUMENT NUMBER: 68:49411

TITLE: Pyridinium ylides in synthesis. III. Synthesis of indolizines

AUTHOR(S): Henrick, C. A.; Ritchie, E.; Taylor, Walter Charles

CORPORATE SOURCE: Univ. Sydney, Sydney, Australia

SOURCE: Australian Journal of Chemistry (1967), 20(11), 2467-77

CODEN: AJCHAS; ISSN: 0004-9425

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB Treatment of pyridinium, quinolinium, and isoquinolinium ylides with acetylenes yields indolizine, such as I, derivs. Pyridinium phenacylide with iodine in dimethylacetamide gives 1,2,3-tribenzoylindolizine. Decomposition of pyridinium phenacylide in the presence of copper or copper oxide affords 1,3-dibenzoylindolizine. 20 references.

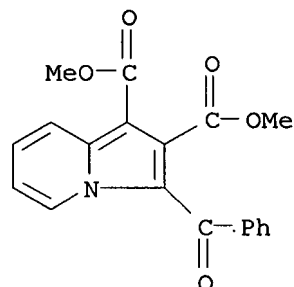
IT 17281-78-6P 17281-79-7P 17281-90-2P

17281-91-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

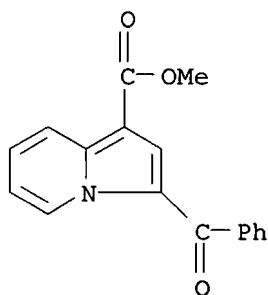
RN 17281-78-6 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



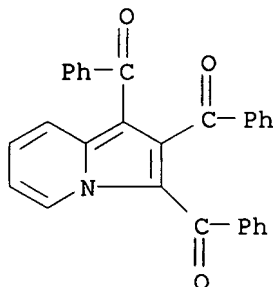
RN 17281-79-7 CAPLUS

CN 1-Indolizinecarboxylic acid, 3-benzoyl-, methyl ester (8CI, 9CI) (CA INDEX NAME)



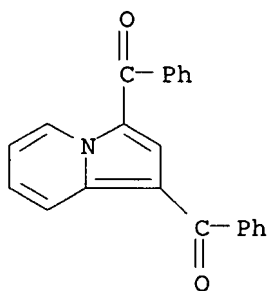
RN 17281-90-2 CAPLUS

CN Methanone, 1,2,3-indolizinetriyltris[phenyl- (9CI) (CA INDEX NAME)



RN 17281-91-3 CAPLUS

CN Methanone, 1,3-indolizinediylbis[phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 55 OF 55 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1961:54302 CAPLUS

DOCUMENT NUMBER: 55:54302

ORIGINAL REFERENCE NO.: 55:10447f-i,10448a-d

TITLE: The formation of pyrrocolines by the reaction of dimethyl acetylenedicarboxylate with heterocyclic zwitterions

AUTHOR(S): Boekelheide, V.; Fahrenholtz, K.

CORPORATE SOURCE: Univ. of Rochester, Rochester, NY

SOURCE: Journal of the American Chemical Society (1961), 83, 458-62

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

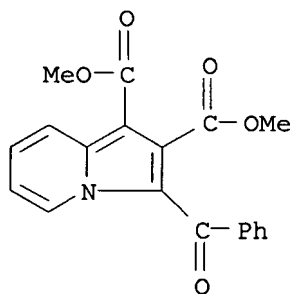
LANGUAGE: Unavailable

AB The heterocyclic zwitterions from 1-phenacylpyridinium bromide (I), 1-phenacyl-2,5-dimethylpyrazinium bromide (II), and 1-phenacylpyrindanium bromide (III) yielded with (.tpltbond.CCO2Me) (IV) the corresponding pyrrocoline or azapyrrocoline derivs. 2-Phenylpyrrocoline (V) (3.86 g.) and 2.9 g. IV in 100 cc. PhMe refluxed 20 hrs. under N with 3.0 g. 5% Pd-C yielded 0.826 g. unchanged V and 1.99 g. di-Me ester (VI) of 1,2-dicarboxy-3-phenylcycl[3.2.2]azine (VII), pale yellow needles, m. 139-40° (Me2CO) (all m.ps. corrected). VI (814 mg.) heated 10 hrs. at 50° with 50 cc. 5% KOH-MeOH gave 724 mg. VII, m. 202-5°. VII (350 mg.) and 300 mg. Cu chromite in 20 cc. quinoline heated at 220° under N until CO2 evolution ceased, filtered, poured onto ice, acidified with HCl, and extracted with Et2O gave 2-phenylcycl[3.2.2]azine, yellow, m. 94-5° (sublimed). BzCH2Br (25.0 g.) and 16 cc. 2,5-dimethylpyrazine heated 1 hr. at 55° gave 31.7 g. II, m. 208-10° (MeOH); picrate, yellow, m. 129-30° (EtOH). II (2.0 g.) in 50 cc. H2O treated with excess Na2CO3, the mixture extracted with CHCl3, the solution passed through Al2O3, evaporated, the unstable, orange solid residue, m. 110°, dissolved immediately in 100 cc. PhMe, and refluxed 16 hrs. under N with 2.5 g. IV and 1.5 g. 5% Pd-C yielded 120 mg. 3-Bz derivative (VIII) of IX, yellow, m. 128-9° (Me2CO), and 280 mg. IX, m. 171-2° (C6H6); IX.HBr, needles, m. 219-21°. 1,2,5-Trimethylpyrazinium iodide (2.0 g.) in 50 cc. H2O treated with excess Na2CO3 and extracted overnight with 100 cc. CHCl3 containing 0.90 g. IV and 1.0 g. 5% Pd-C yielded 23 mg. IX, m. 168-70°. VIII (300 mg.) and 2 g. BzCH2Br in 30 cc. MeOH kept 7 days at room temperature and evaporated in vacuo yielded 300 mg. 3-Bz derivative of 1,2-dicarbomethoxy-5-methyl-9-phenyldipyrrolo[a,c]pyrazine (X), yellow, m. 201-2° (PhMe). IX (611 mg.) and 465 mg. BzCH2Br in 20 cc. HCONMe2 heated 24 hrs. at 80°, poured into H2O, and extracted with Et2O yielded 350 mg. X, yellow needles, m. 201-2° (EtOH-Me2CO). X (300 mg.) in alc. KOH refluxed 1 hr. and the resulting acid (295 mg.) decarboxylated in the usual manner with 100 mg. Cu chromite and 20 cc. quinoline gave 160 mg. 2-phenyl-6-methyldipyrrolo[a,c]pyrazine, yellow prisms, m. 195.5-6.0° (Me2CO). II (5.0 g.) in 50 cc. H2O treated with solid Na2CO3, the mixture extracted with CHCl3, and the residue from the extract refluxed 20 hrs. under N in 100 cc. PhMe with 2.56 g. IV and 2.0 g. 5% Pd-C yielded 1.10 g. 1,2-dicarbomethoxy-3-benzoylpyrrocoline (XI), m. 165-6° (Me2CO). XI (100 mg.) heated 6 hrs. at 50° with KOH-MeOH gave 59 mg. 3-benzoylpyrrocoline-2-carboxylic acid (XII), pale yellow, m. 164-6° (Me2CO). XII (130 mg.) in concentrated HCl refluxed 1 hr. gave 47 mg. pyrrocoline-2-carboxylic acid, pale yellow, m. 244-6° (decomposition) (sublimed). Pyrindan (10.54 g.) and 17.6 g. BzCH2Br in 200 cc. 1:1 Et2O-CHCl3 kept 16 hrs. at room temperature, heated 6 hrs. at 50°, and evaporated gave 28 g. III, needles, m. 168-9.5° (EtOH-EtOAc). III (2.0 g.) in 20 cc. H2O treated with excess Na2CO3 and the unstable solid orange residue from the extract refluxed 6 hrs. under N with 0.90 g. IV and 2.0 g. 5% Pd-C in PhMe yielded 165 mg. 1,2-dicarbomethoxy-3-benzoyl-5,6-trimethylenepyrrocoline, yellow prisms, m. 160.5-1.5° (EtOH).

IT 17281-78-6P, 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester
 RL: PREP (Preparation)
 (preparation of)

RN 17281-78-6 CAPLUS

CN 1,2-Indolizinedicarboxylic acid, 3-benzoyl-, dimethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 07:41:53 ON 27 JUN 2007)

FILE 'REGISTRY' ENTERED AT 07:42:03 ON 27 JUN 2007

L1 STRUCTURE UPLOADED
L2 14 S L1
L3 279 S L1 FULL

FILE 'CAPLUS' ENTERED AT 07:42:32 ON 27 JUN 2007

L4 55 S L3 FULL

=> FIL STNGUIDE

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
292.20	464.51

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-42.90	-42.90

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FILE 'STNGUIDE' ENTERED AT 07:45:46 ON 27 JUN 2007

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(FILE 'HOME' ENTERED AT 07:41:53 ON 27 JUN 2007)

FILE 'REGISTRY' ENTERED AT 07:42:03 ON 27 JUN 2007

L1 STRUCTURE UPLOADED
L2 14 S L1
L3 279 S L1 FULL

FILE 'CAPLUS' ENTERED AT 07:42:32 ON 27 JUN 2007

L4 55 S L3 FULL

FILE 'STNGUIDE' ENTERED AT 07:45:46 ON 27 JUN 2007

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COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
3.96	468.47

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE
ENTRY
0.00

TOTAL
SESSION
-42.90

CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 08:25:12 ON 27 JUN 2007